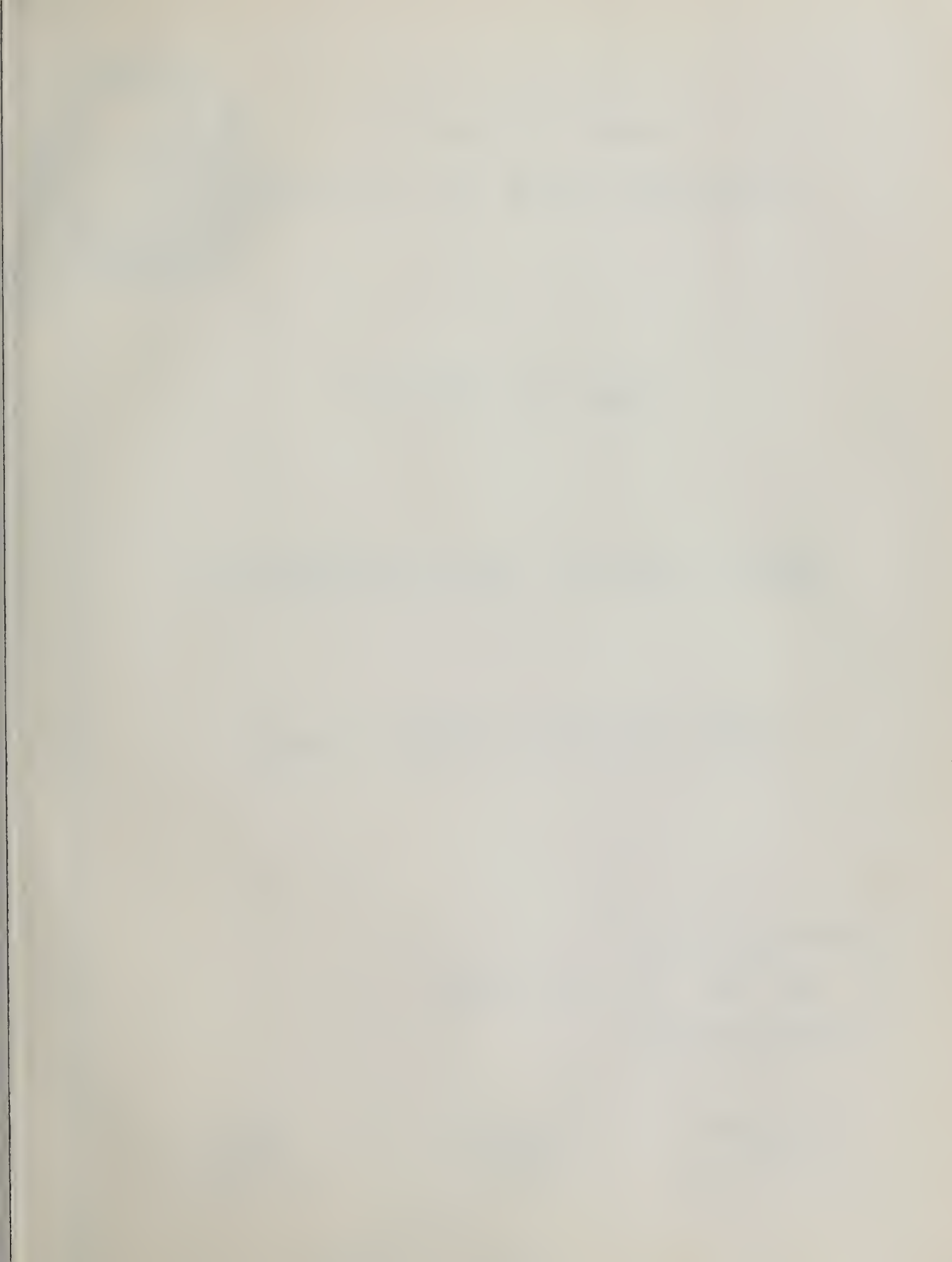




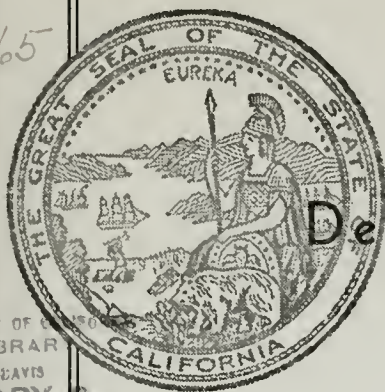
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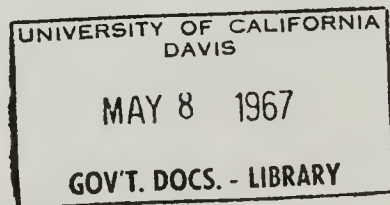
Department of Water Resources

BULLETIN No. 130-65

# HYDROLOGIC DATA: 1965

Volume I: NORTH COASTAL AREA

DECEMBER 1966



HUGO FISHER  
*Administrator*  
The Resources Agency

EDMUND G. BROWN  
*Governor*  
State of California

WILLIAM E. WARNE  
*Director*  
Department of Water Resources

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ORGANIZATION OF BULLETIN NO. 130 SERIES

- Volume I - NORTH COASTAL AREA
- Volume II - NORTHEASTERN CALIFORNIA
- Volume III - CENTRAL COASTAL AREA
- Volume IV - SAN JOAQUIN VALLEY
- Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

- Appendix A - CLIMATE
- Appendix B - SURFACE WATER FLOW
- Appendix C - GROUND WATER MEASUREMENTS
- Appendix D - SURFACE WATER QUALITY
- Appendix E - GROUND WATER QUALITY

## FOREWORD

The Bulletin No. 130 series of reports incorporates data on surface water, ground water, and climate previously published annually in Bulletin Nos. 23, 39, 65, 66, and 77. With the inauguration of this series of reports, publication of the earlier reports was suspended. This is the third in the new series of reports.

Bulletin No. 130 is published annually in five volumes, each volume reporting hydrologic data for one of five specific reporting areas of the State. The area orientation map on page iii delineates these areas.

This report is Volume I, "North Coastal Area". It includes five appendixes of detailed hydrologic data: Appendix A, "Climate", Appendix B, "Surface Water Flow", Appendix C, "Ground Water Measurements", Appendix D, "Surface Water Quality", and Appendix E, "Ground Water Quality".

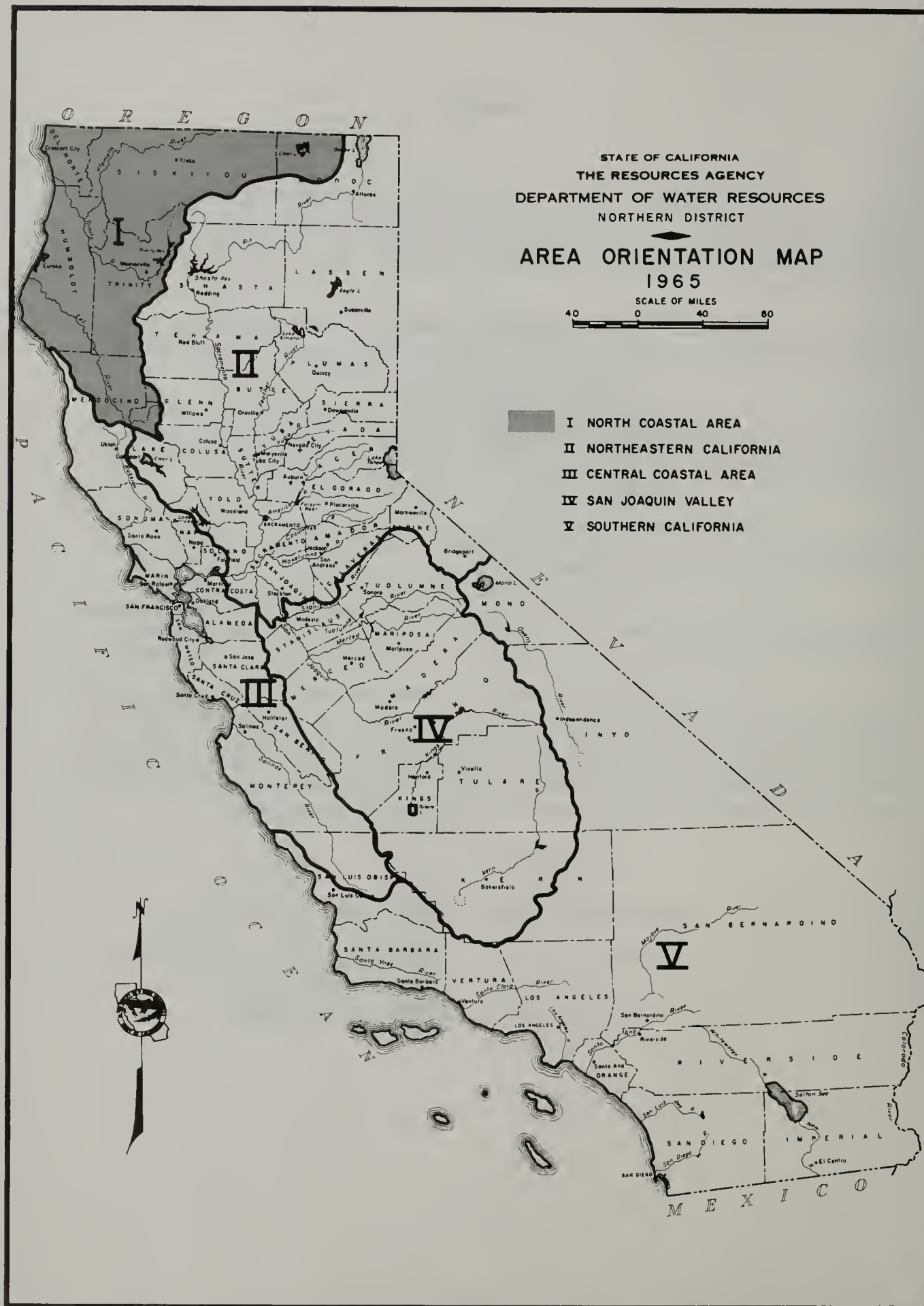
The collection and publication of data contained in Bulletin No. 130 is authorized by Sections 225, 226, 228, 229, 232, 345, 12609, 12616, and 12622 of the California Water Code.

The hydrologic data programs of the Department of Water Resources are designed to supplement the activities of other agencies and present useful, comprehensive, accurate, and timely hydrologic data to the public.

Other agencies have generously assisted in collecting much of the data presented in this bulletin. I wish especially to acknowledge the helpful assistance given by the Geological Survey, the Forest Service, the Weather Bureau, the local County Farm Advisors of the Agricultural Extension Service, the California Department of Public Health, and the many local weather observers who have so unselfishly given of their time.



William E. Warne, Director  
Department of Water Resources  
The Resources Agency  
State of California  
December 12, 1966



## TABLE OF CONTENTS

ORGANIZATION OF BULLETIN NO. 130 SERIES . . . . .	<u>Page</u> ii
FOREWORD . . . . .	iii
AREA ORIENTATION MAP . . . . .	iv
METRIC CONVERSION TABLE . . . . .	viii
ORGANIZATION, DEPARTMENT OF WATER RESOURCES . . . . .	ix
ABSTRACT . . . . .	x
TEXT . . . . .	1

## APPENDIXES

### Appendix

A	CLIMATE. . . . .	5
B	SURFACE WATER FLOW . . . . .	19
C	GROUND WATER MEASUREMENTS. . . . .	35
D	SURFACE WATER QUALITY . . . . .	49
E	GROUND WATER QUALITY . . . . .	83

## FIGURES

### Figure

A-1	Mean Seasonal Precipitation. . . . .	10
B-1	Surface Water Measurement and Quality Monitoring Stations, 1964-65 . . . . .	24
C-1	Ground Water Basins, 1964-65 . . . . .	41

## TABLES

<u>Table</u>		<u>Page</u>
A-1	Index of Climatological Stations for 1964-65 . . . . .	11
A-2	Precipitation Data for 1964-65 . . . . .	13
A-3	Storage Gage Precipitation Data for 1964-65. . . . .	15
A-4	Temperature Data for 1964-65 . . . . .	16
A-5	Evaporation Data for 1964-65 . . . . .	18
B-1	Daily Mean Discharge . . . . .	
	Shasta River at Edgewood. . . . .	26
	Little Shasta River near Montague . . . . .	27
	Etna Creek near Etna. . . . .	28
	Moffett Creek near Fort Jones . . . . .	29
	Weaver Creek near Douglas City. . . . .	30
	Browns Creek near Douglas City. . . . .	31
	North Fork Trinity River at Helena. . . . .	32
	Big Creek near Hayfork. . . . .	33
B-2	Streamflow Measurements at Miscellaneous Sites . . . . .	34
C-1	Average Ground Water Level Changes in North Coastal Area Basins, Spring 1964 - Spring 1965 . . . . .	42
C-2	Ground Water Levels at Wells . . . . .	43
D-1	Index of Sampling Stations . . . . .	53
D-2	Analyses of Surface Water. . . . .	54
D-3	Analyses of Trace Elements in Surface Water. . . . .	81
E-1	Analyses of Ground Water . . . . .	87

## PLATES

(Bound at back of bulletin)

<u>Plate</u>	
1	Climatological Observation Stations, 1964-65

## METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT
Inch (in)	2.54 Centimeters
Foot (ft)	0.3048 Meter
Mile (mi)	1.609 Kilometers
Acre	0.405 Hectare
Square mile (sq. mi.)	2.590 Square kilometer
U. S. gallon (gal)	3.785 Liters
Acre foot (acre-ft)	1,233.5 Cubic meters
U. S. gallon per minute (gpm)	0.0631 Liters per second
Cubic feet per second (cfs)	1.7 Cubic meters per minute







State of California  
The Resources Agency  
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor  
HUGO FISHER, Administrator, The Resources Agency  
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Reviewed and coordinated by  
Statewide Planning Office  
Data Coordination Branch

## ABSTRACT

Tables show data on climate and ground water levels for the period July 1, 1964 to June 30, 1965; and on surface water flow and surface and ground water quality for the period October 1, 1964 to September 30, 1965. Figures show mean seasonal precipitation, surface water measurement and quality monitoring stations and ground water basins. A foldout plate shows locations of climatological observation stations.

The Department of Water Resources is concerned with the development and use of water supplies and with the methods that are employed to observe and measure hydrologic conditions. Hydrologic data are used for the planned development of new water supplies including its uses for irrigation, drainage, hydropower, flood control, navigation, recreation, and fisheries enhancement; the operation of existing projects; and other associated engineering projects. The Department's hydrologic data programs are also designed to supplement and augment the activities of other agencies.

The tabulation on page 2 presents a summary of the active hydrologic data programs in the North Coastal Area during 1964-65. The table specifies the origin of the programs, program objectives, program authorizations, the type of data collected, the collection agency, the frequency of measurement or service, and the total number of stations measured during 1964-65.

The Department's climatologic and surface water measurement stations have been selected to augment the basic hydrologic networks of the U. S. Weather Bureau and U. S. Geological Survey, respectively. The current federal hydrologic data programs are normally not sufficient to meet the many needs of the State.

The climatologic data collected by the Department include information on precipitation, temperature, and evaporation. Both surface water flow and recharge to ground water vary in direct response to precipitation. Evaporation is an important part of the consumptive use of water and, with other climatological events, affect conditions and use of a water supply.

Ground water is the source of supply for about one-half of the water beneficially used in California. However, the use of ground water in the North Coastal Area is less extensive than in other areas of the State. Data on the

SUMMARY OF HYDROLOGIC DATA IN THE NORTH COASTAL AREA, 1964-65

Program	Origin	Purpose	Authorization	Type Collected	Collected by	Frequency Measured	Number of Stations
						or Serviced	
Climatologic Data	1956	To maintain an inventory of historical climatological conditions to: (1) predict runoff; (2) plan and operate water projects; and (3) make all weather data available for ready use.	Secs. 228, 12609, 12616 of Water Code	Precipitation Precipitation Storage Gages Storage Gages Temperature Temperature Evaporation Evaporation Wind Streamflow	DWR Cooperators USWB DWR USWB DWR Cooperators USWB DWR Cooperators USWB USWB DWR	Daily Daily Annually Annually Daily Daily Daily Daily Daily Serviced twice each month, measured monthly	48 72 6 5 17 5 2 4 Not measured in 1964-65 8
Surface Water Measurement	1924	To provide an inventory of data on surface water which will be readily available for: (1) forecasting streamflow; (2) planning water development projects; (3) operation of flood control and multipurpose projects; and (4) formulation of agreements on water rights without expensive litigation.	Secs. 225, 226, 228, 12609, 12616 of Water Code				
Ground Water Measurement	1929	To compile representative ground water data, so that: (1) information will be readily available for future conjunctive operations; (2) appraisal can be made of drainage and overdraft problems; (3) local interest and cooperation will be stimulated; and (4) planning to develop the potential ground water basins can be facilitated	Secs. 225, 226, 228, 12609 of Water Code	Depth to Ground Water	USGS	Monthly	35

Program	Origin	Purpose	Authorization:	Data		
				Type Collected	Collected by	Frequency Measured : Number of : or Serviced : Stations
Surface Water Quality Data	1951	To compile representative surface water quality data to: (1) determine the quality of the State's surface waters; (2) detect changes in quality and alert control agencies when adverse changes occur; (3) determine trends; (4) record and catalogue the data in a readily available form; and (5) disseminate the data and information collected.	Sec. 226, 229 12609, 12616 of Water Code	Mineral (Standard mineral semiannually, partial mineral remaining months)  Trace Elements (heavy metals)  Bacteriological	DWR  DWR  DWR	Monthly  Semiannually  Monthly  8  14
Ground Water Quality Data	1953	To compile representative ground water quality data to: (1) establish existing ground water bodies; (2) determine the quality of the State's ground waters; (3) detect changes in quality and alert control agencies when adverse changes occur; (4) determine trends; and (5) provide for organization and ready dissemination of ground water quality data.	Sec. 226, 229, 12609, 12616, of Water Code	Standard and partial mineral  Trace Elements (heavy metals)	DWR and local county farm advisors  DWR and local county farm advisors	Annually  Selected intervals Not sampled in 1964-65 64

current status of the major ground water basins are collected and processed within the framework of the Department's Ground Water Measurement Program. During 1964-65, monthly field measurements were made by the U.S. Geological Survey. The Department reviews, processes, and edits the data. Since only a few wells are measured in many of the monitored ground water basins, it is difficult to derive meaningful values for the average changes in water levels. However, the historical measurements do indicate trends in local ground water levels.

Water quality is a measure of a water supply's characteristics which affect the useability of the water. As greater demand is placed on available water supplies, more effective use and reuse of the State's waters become necessary. Since quality may limit the useability of a water, knowledge of quality conditions is necessary for the most efficient use of water supplies.

Efforts are continuously being made to improve the quality and useability of the hydrologic data networks of both the federal government and the State.

The future conduct of the hydrologic data programs in the North Coastal Area, particularly with respect to the water quality and ground water measurement activities, will be to reduce the frequency of measurements at a number of stations and yet continue to retain the quality of data currently obtained. An increasing effort is being made to more adequately define the ground water aquifer through geologic investigations. With this increased emphasis on the differentiation between the various ground water zones, the data collected can be made more useful and meaningful.



APPENDIX A

CLIMATE





## CLIMATE

The Department of Water Resources cooperates with the U. S. Weather Bureau and local agencies in the collection of climatological data. Climatological data programs are dependent, for the most part, on the cooperation of local observers. Data from selected key stations are published by both the Department and the U. S. Weather Bureau.

The tables in this appendix include total monthly and seasonal precipitation; monthly temperatures showing maximum, average maximum, average, average minimum, and minimum temperatures; evaporation data showing the total evaporation monthly for the period July 1, 1964 through June 30, 1965; and total annual precipitation for 1964-65 as measured at the storage gages in the northern part of the State (so installed because of their extreme remoteness).

The reporting period for climatologic data is defined as the 15-month period from July 1 of one year through September 30 of the subsequent year. Climatologic data for the period July 1, 1965 through September 30, 1965 were not available for this report.

Most of the stations use standard meteorological equipment. Commonly accepted procedures are employed in summing up monthly totals and computing mean values. In the preparation of the mean seasonal isohyetal map (Figure A-1) the long term mean values are based on the 50-year mean period 1905-06 to 1954-55 for those stations with sufficient length of record. At other stations, all available records are used in determining the mean. Station density in the North Coastal Area is generally adequate for making reasonable estimates of average conditions over extended areas, with the possible exception of the areas in the high altitudes.

In some instances the weather data program has been hampered by relatively inaccessible mountainous areas and an inability to obtain the

services of qualified local weather observers.

A description of the tables and plates included in this appendix follows:

Table A-1, "Index of Climatological Stations", contains a listing of all active climatological stations in the North Coastal Area during the period July 1, 1964 through June 30, 1965. The station names are arranged in alphabetical order. Each station is given a code number which is composed of two parts -- a drainage basin designation, and an Alpha Order Number which corresponds to the alphabetical sequence of the station with respect to the other stations in that drainage basin. A sub-number of two digits is occasionally affixed to the four-digit Alpha Order Number. This is necessary to provide for greater flexibility as new stations are added to the listing. The cooperator index number is used when the Alpha Order Number is in conflict with the U. S. Weather Bureau number.

Other information is also given, including the year in which the record was begun, the year the record ended, and the years of missing record. The code for the county in which the station is located is shown below:

<u>County</u>	<u>Code</u>
Del Norte	08
Humboldt	12
Mendocino	23
Modoc	25
Siskiyou	47
Trinity	53

Table A-2, "Precipitation Data", contains a listing of all precipitation measurements collected in the North Coastal Area during the period July 1, 1964 through June 30, 1965. The listing is in alphabetical order by station name. The table includes a summary of total seasonal precipitation and lists each monthly amount.

Table A-3, "Storage Gage Precipitation Data," presents the total 1964-65 seasonal precipitation at a number of storage gages located in remote regions in

the North Coastal Area.

Table A-4, "Temperature Data", describes air temperature data collected by the Department of Water Resources in the North Coastal Area. The stations are listed in alphabetical order. A listing by drainage basin and Alpha Order Number is also given. A column titled "Season" summarizes the extreme values of temperature reported at each station and also lists the mean of the monthly values. The maximum, average maximum, average, average minimum, and minimum monthly values are given for each station, and are based on 1964-65 data.

Table A-5, "Evaporation Data", describes the data collected from all evaporation stations in the North Coastal Area. This information is used to determine loss of water by evaporation from existing and proposed water storage and conveyance facilities. The stations are listed alphabetically. The table includes a listing of drainage and Alpha Order Numbers corresponding to the station names. Total evaporation is shown for each month during the period July 1, 1964 through June 30, 1965.

Figure A-1, "Mean Seasonal Precipitation", shows the rainfall pattern over the North Coastal Area. Lines of equal mean seasonal precipitation are drawn to define the normal amounts. The lines represent normals based on a 50-year mean period of 1905-06 through 1954-55.

Plate 1, "Climatological Observation Stations", shows the locations of all actively reporting climatological stations in the North Coastal Area. These include the U. S. Weather Bureau stations reported in the U. S. Department of Commerce monthly publication, "Climatological Data", and many stations operated by cooperative observers. A legend on the map describes the symbols used for the various types of measuring equipment and observation made.



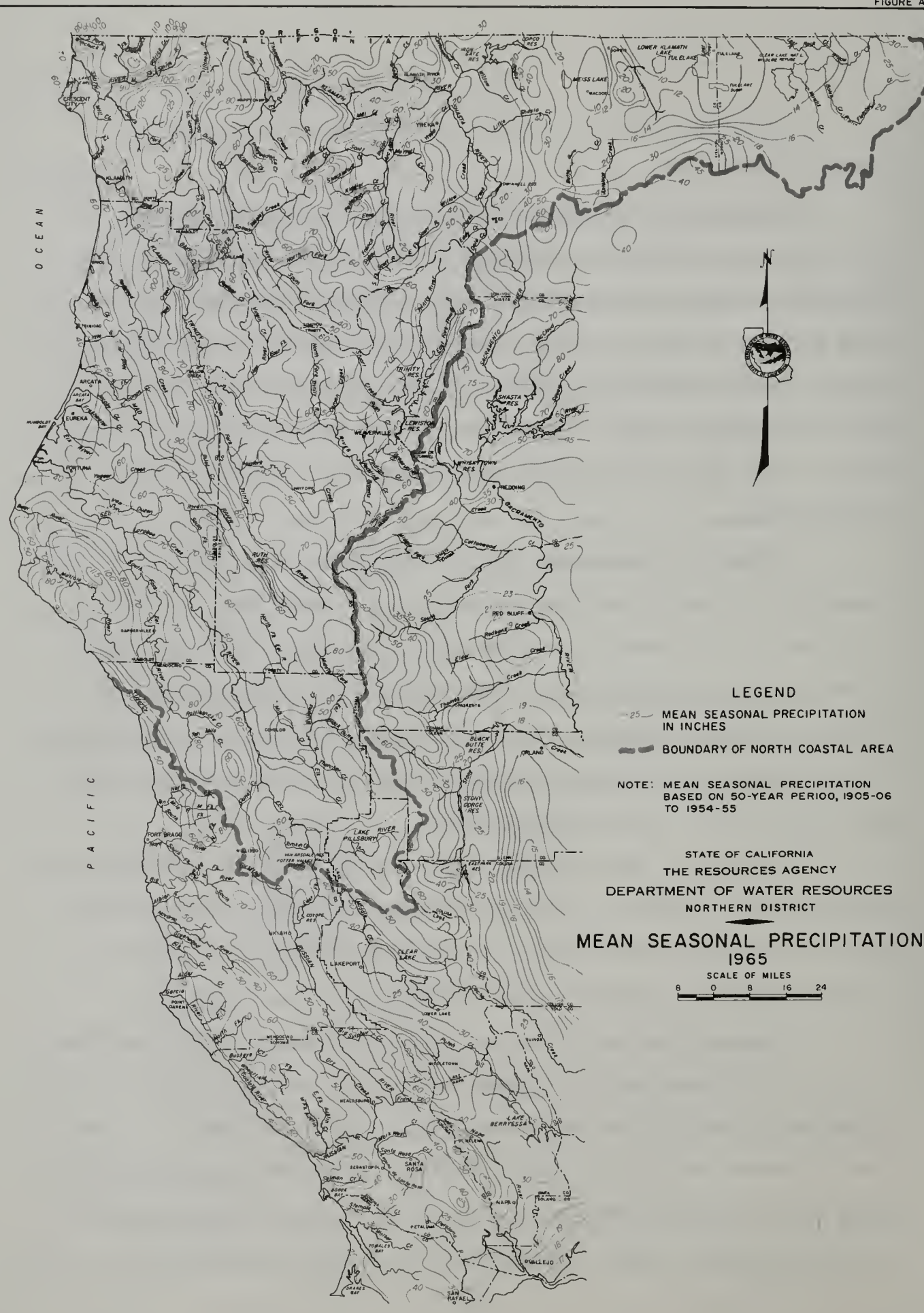


TABLE A-1  
INDEX OF CLIMATOLOGICAL STATIONS FOR 1964-65  
NORTH COASTAL AREA

Station		Elevation (in feet)	Section	Township	Range	40-Acre Tract Base & Meridian	Latitude			Longitude			Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
Number	Name						O	I	N	O	I	N						
F6 0018	ADANAC LODGE	1100	SEC 14	T23N	R17W	H M	39	50	48	123	42	00	000		1950			23
F6 0088	ALDERPOINT	435	SEC 27	T03S	R05E	H	40	11	00	123	36	00	900		1940			12
F5 0253	ARCATA A P	217	SEC 19	T07N	R01E	Q	H	40	58	18	124	05	24	000		1957		12
F3 0715	BESWICK 7 S	6140	SEC 33	T47N	R03W	M	41	52	00	122	14	00	900		1952			47
F4 0738	BIG BAR RANGER STA	1270	SEC 05	T33N	R12W	M	40	44	54	123	14	42	900		1943			53
F5 0764	BIG LAGOON	100	SEC 18	T09N	R01E	R	H	41	09	36	124	05	54	000	PN2125	1947		12
F2 0786-01	BIG SPRINGS 4 E	2955	SEC 05	T43N	R04W	R	M	41	35	30	122	19	42	000		1960		47
F3 0899	BLUE CREEK MTN LO	4870	SEC 30	T12N	R04E	R	H	41	23	42	123	45	54	900		1960		08
F5 0901	BLUE LAKE	105	SEC 30	T06N	R02E	A	H	40	52	54	123	59	12	000		1951		12
F5 0903	BLUE LAKE REDWOOD CR	975	SEC 11	T06N	R03E	H	H	40	55	00	123	49	00	900		1956		12
F4 0929	BOARDCAMP MTN	4500	SEC 26	T04N	R04E	H	H	40	42	12	123	42	00	000		1963		12
F6 1046	BRANSCOMB 2 NW	1480	SEC 09	T21N	R16W	M	M	39	41	12	123	39	36	900		1959		23
F1 1050	BRAY 10 WSW	5759	SEC 24	T43N	R03W	M	M	41	34	00	122	08	00	900		1951		47
F6 1080	BRIDGEVILLE 4 NNW	2050	SEC 27	T02N	R03E	H	H	40	31	00	123	49	00	900		1954		12
F6 1083	BRIDGEVILLE P O	650	SEC 11	T01N	R03E	Q	H	40	28	06	123	48	00	000		1959		12
F6 1181	BULL CREEK	410	SEC 36	T01S	R01E	H	H	40	21	00	124	06	30	000		1960		12
F6 1210	BURLINGTON ST PARK	200	SEC 12	T02S	R02E	D	H	40	18	30	123	54	24	000		1950		12
F4 1215	BURNT RANCH 1S	2150	SEC 23	T05N	R06E	E	H	40	47	48	123	28	48	900		1945		53
F4 1215-15	BURNT RCH HMS	1500	SEC 14	T05N	R06E	F	H	40	48	30	123	28	30	000		1963		53
F2 1316	CALLAHAN RANGER STA	3136	SEC 21	T40N	R08W	M	M	41	18	00	122	48	00	900		1943		47
F0 1446	CAMP SIX LOOKOUT	3700	SEC 31	T17N	R03E	B	M	41	49	48	123	52	24	000		1963		08
F7 1505	CAPE RANCH	710	SEC 23	T01N	R03W	F	H	40	27	24	124	22	48	000		1959		12
F3 1606	CECILVILLE 5 SE	2980	SEC 12	T37N	R11W	M	M	41	06	00	123	03	00	900		1954		47
F6 1608	CEDAR CREEK HATCHERY	950	SEC 14	T23N	R17W	Q	M	39	50	24	123	42	18	805		1957		23
F3 1799	CLEAR CREEK	975	SEC 07	T15N	R07E	H	H	41	42	30	123	26	54	900		1959		47
F4 1886	COFFEE CREEK RS	2500	SEC 06	T07W	R37N	M	M	41	05		122	42		900		1960		53
F3 1990	COPCO DAM NO 1	2700	SEC 29	T48N	R04W	P	M	41	59	00	122	20	00	900		1928		47
F6 2081	COVELO	1385	SEC 12	T22N	R13W	M	M	39	47	00	123	15	00	900		1921		23
F6 2084	COVELO EEL RIVER RS	1514	SEC 28	T23N	R11W	M	M	39	50	00	123	05	00	900		1940		23
F0 2147	CRESCENT CITY 1 N	40	SEC 20	T16N	R01W	H	H	41	46	00	124	12	00	900		1885		08
F0 2148	CRESCENT CITY 7 ENE	120	SEC 08	T16N	R01E	H	H	41	48	00	124	05	00	900		1913		08
F0 2150	CRESCENT CITY HMS	50	SEC 20	T16N	R01W	H	H	41	46	00	124	12	00	900		1941		08
F0 2152	CRESCENT CITY 11 E	360	SEC 30	T16N	R02E	B	H	41	45	18	123	59	30	000		1947		08
F1 2188	CROWDER FLAT	5175	SEC 20	T47N	R11E	K	M	41	53	00	120	44	00	000	PN2188	1958		25
F6 2218	CUMMINGS	1270	SEC 21	T23N	R16W	M	M	39	50	00	123	38	00	900		1927		23
F1 2480	DORRIS INSPECT STA	4240	SEC 36	T48N	R01W	R	M	41	57	18	121	54	30	000		1959		47
F6 2490	DOS RIOS	927	SEC 31	T22N	R13W	M	M	39	43	00	123	21	00	900		1917		23
F0 2749	ELK VALLEY	1711	SEC 34	T19N	R04E	H	M	42	00	00	123	43	00	900		1938		08
F2 2899	ETNA	2912	SEC 28	T42N	R09W	M	M	41	28	00	122	54	00	900		1935		47
F6 2910	EUREKA WB CITY	43	SEC 22	T05N	R01W	H	H	40	48		124	10		900		1878		12
F7 3025	FERNDAL 8 SSW	1445	SEC 06	T01N	R02W	P	H	40	29	30	124	20	24	900		1959		12
F6 3030	FERNDAL 2NW	10	SEC 34	T03N	R02W	K	H	40	35	54	124	16	36	900		1963		12
F5 3041	FIELDBROOK 4 D RCH	285	SEC 36	T07N	R01E	P	H	40	56	36	124	01	06	000		1956		12
F3 3122	FOOTHILL SCHOOL	2960	SEC 25	T46N	R05W	F	M	41	48	42	122	22	18	000		1962		47
F4 3130	FOREST GLEN	2340	SEC 22	T01S	R08E	H	H	40	23	00	123	20	00	900		1930		53
F3 3151	FORKS OF SALMON	1270	SEC 24	T10N	R07E	A	H	41	15	12	123	19	00	900		1959		47
F0 3173	FORT DICK	46	SEC 14	T17N	R01W	H	H	41	52	00	124	09	00	900		1951		
F2 3176	FORT JONES 6 ESE	3324	SEC 12	T43N	R08W	M	M	41	35	00	122	43	00	900		1941		47
F2 3182	FORT JONES RANGER ST	2720	SEC 02	T43N	R09W	C	M	41	36	00	122	51	00	900		1936		47
F6 3194	FORTUNA	60	SEC 35	T03N	R01W	Q	H	40	36	00	124	09	00	000		1955		12
F6 3217	FOX CAMP	2500	SEC 09	T02S	R01E	R	H	40	18	24	124	03	54	811		1960		12
F6 3320	GABERVILLE	340	SEC 24	T04S	R03E	H	H	40	06	00	123	48	00	900		1938		12
F6 3322-01	GABERVILLE HMS	540	SEC 24	T04S	R03E	G	H	40	06	00	123	47	40	809		1935		12
F0 3357	GASQUET RANGER STA	384	SEC 21	T17N	R02E	N	H	41	52	00	123	58	00	900		1940		08
F2 3361-03	GAZELLE - EPPERSON	2760	SEC 17	T43N	R06W	J	M	41	34	18	122	33	12	000		1950		47
F2 3363	GAZELLE LOOKOUT	5200	SEC 08	T41N	R07W	J	M	41	24	30	122	40	30	000		1956		47
F2 3363-05	GAZELLE TUCKER	2690	SEC 16	T43N	R06W	M	M	41	34	30	122	32	36	000		1964		47
F1 3564	GRASS LAKE HMS	5080	SEC 28	T44N	R03W	G	M	41	37	48	122	11	30	900		1954		47
F2 3614	GRFFENVIEW	2818	SEC 29	T43N	R09W	M	M	41	33	00	122	54	00	900		1943		47
F6 3647	GRIZZLY CRK REDWOOD	500	SEC 11	T01N	R02E	H	H	40	29	00	123	47	00	900		1963		12
F3 3761	HAPPY CAMP RANGR STA	1090	SEC 11	T16N	R07E	H	H	41	48	00	123	23	00	900		1914		47
F6 3785	HARRIS 7 SSE	1910	SEC 27	T05S	R05E	N	H	39	59	24	123	36	42	000		1953		23
F6 3810	HARTSOOK INN	470	SEC 24	T05S	R03E	D	H	40	00	48	123	47	30	000		1957		12
F4 3859	HAYFORK RANGER STA	2340	SEC 12	T31N	R12W	R	M	40	33	00	123	10	00	900		1915		53
F4 3949	HIDDEN VALLEY RCH	1978	SEC 32	T01N	R07E	M	H	40	24	54	123	24	30	000		1959		53
F6 3956	HIGH ROCK	900	SEC 15	T01S	R02E	K	H	40	22	48	123	56	30	808		1960		44
F3 3987	HILTS	2900	SEC 23	T48N	R07W	M	M	42	00	00	122	38	00	900		1939		47
F6 4037-02	HOLMES	150	SEC 33	T01N	R02E	R	H	40	25	06	123	57	06	000		1954		12
F7 4074	HONEYDEW 2 WSW	380	SEC 02	T03S	R01W	C	H	40	14	18	124	09	00	900		1953		12
F7 4074-01	HONEYDEW HUNTER	380	SEC 02	T03S	R01W	M	H	40	14	18	124	09	06	000		1955		12



TABLE A-1 (Continued)  
**INDEX OF CLIMATOLOGICAL STATIONS FOR 1964-65**  
**NORTH COASTAL AREA**

Station		Elevation (in feet)	Section	Township	Range	40-Acre Tract Base & Meridian	Latitude			Longitude			Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
Number	Name						O	I	N	O	I	N						
F5 4077	HONOR CAMP 42	1875	SEC 31	T07N	R03E	K H 40	56	48	123	52	42	000			1956		12	
F4 4082	HOOPA	350	SEC 25	T08N	R04E	H 41	03	00	123	40	00	900			1941		12	
F4 4084	HOOPA 2 SE	315	SEC 31	T08N	R05E	H 41	02	00	123	39	00	900			1954		12	
F4 4191	HYAMPOM	1260	SEC 25	T03N	R06E	H 40	37	00	123	28	00	900			1940		53	
F0 4202	IDLEWILD HMS	1250	SEC 06	T17N	R04E	D H 41	54	00	123	46	12	900			1946		08	
F3 4577	KLAMATH	25	SEC 15	T13N	R01E	H 41	31	00	124	02	00	900			1941		08	
F6 4587	KNEELAND 10 SSE	2356	SEC 13	T03N	R02E	H 40	38	00	123	54	00	900			1954		12	
F5 4602	KORBEL	150	SEC 28	T06N	R02E	P H 40	52	00	123	57	30	900			1937		12	
F6 4690	LAKE MOUNTAIN		SEC 21	T05S	R07E	H 40	01	00	123	24	00	900			1939		53	
F6 4698	LAKE PILLSBURY NO 2	1740	SEC 10	T18N	R10W	M 39	25		122	59		900			1964		17	
F1 4838	LAVA BEDS NAT MON	4770	SEC 28	T45N	R04E	H M 41	43	48	121	30	30	900			1940		06 47	
F6 4851	LAYTONVILLE	1640	SEC 01	T21N	R15W	M 39	42	00	123	29	00	900			1940		23	
F5 4982	LITTLE RIVER	150	SEC 31	T08N	R01E	P H 41	01	54	124	06	36	000			1949		12	
F2 4984-02	LITTLE SHASTA	2725	SEC 26	T45N	R05W	C M 41	43	00	122	23	00	000			1960		47	
F1 5081-01	LONG BELL STATION	4375	SEC 20	T42N	R05E	B M 41	28	00	121	25	00	000			1958		25	
F5 5244	MAD RIVER RANGER STA	2775	SEC 17	T01N	R06E	H 40	27	00	123	32	00	900			1943		53	
F1 5505	MEDICINE LAKE	6660	SEC 10	T43N	R03E	M 41	35	00	121	37	00	900			1946		47	
F6 5676	MJNA 3 NW	2875	SEC 28	T05S	R07E	A H 40	00	06	123	23	30	000			1927		53	
F6 5711	MIRANDA 4 SE	263	SEC 30	T03S	R04E	H 40	11	00	123	47	00	900			1964		12	
F6 5713	MIRANDA SPENGLER RCH	400	SEC 19	T03S	R04E	H 40	12	00	123	46	00	900			1939		12	
F2 5783	MONTAGUE	2500	SEC 27	T45N	R06W	O M 41	43	42	122	31	36	000	045783	1888		05 47		
F2 5785	MONTAGUE 3 NE	2640	SEC 18	T45N	R05W	M 41	45	00	122	28	00	900			1948		47	
F1 5941	MOUNT HEBRON R S	4250	SEC 32	T46N	R01W	M 41	47	00	122	00	00	900			1942		47	
F4 6032	MUMBO BASIN	5700	SEC 35	T39N	R06W	E M 41	12	00	122	32	00	900			1946		53	
F6 6050	MYERS FLAT	190	SEC 30	T02S	R03E	H 40	15	40	123	52	00	000			1950		12	
F6 6050-01	MYERS FLAT-CRANE	175	SEC 30	T02S	R03E	J H 40	15	42	123	52	36	000			1963		12	
F3 6328	OAK KNOLL RANGER STA	1963	SEC 12	T46N	R09W	M 41	50	00	122	51	00	900			1942		47	
F6 6408	OLD HARRIS	2225	SEC 30	T04S	R05E	G H 40	05	00	123	39	42	000			1956		12	
F5 6497-01	ORICK 3 NNE	50	SEC 22	T11N	R01E	K H 41	19	24	124	02	30	000			1950		12	
F5 6497-02	ORICK ARCATA REDWOOD	75	SEC 22	T11N	R01E	K H 41	19	24	124	02	36	000			1954		12	
F5 6498	ORICK PRAIRIE CREEK	161	SEC 02	T11N	R01E	H 41	22	00	124	01	00	900			1937		12	
F3 6508	ORLEANS	403	SEC 31	T11N	R06E	H 41	18	00	123	32	00	900			1885		12	
F5 6745	PATRICKS PT ST PK	250	SEC 26	T09N	R01W	L H 41	08	12	124	09	00	804			1947		12	
F7 6835-01	PETROLIA	175	SEC 03	T02S	R02W	L H 40	19	30	124	16	48	000			1958		12	
F7 6835-02	PETROLIA 4 NW	900	SEC 19	T01S	R02W	O H 40	22	24	124	18	30	000			1953		12	
F6 6851-15	PHILLIPSVILLE 1SE	300	SEC 19	T03S	R04E	B M 40	11	42	123	46	00	000			1963		12	
F6 6976	PLASKETT	6580	SEC 27	T22N	R09W	A M 39	44	12	122	51	24	000			1960		11	
F6 7404	RICHARDSON GROVE	500	SEC 13	T05S	R03E	H 40	02		123	47		900			1961		12	
F4 7698	SALYER RANGER STA	623	SEC 14	T06N	R05E	H 40	53	00	123	35	00	900			1931		53	
F3 8025	SAWYERS BAR R S	2169	SEC 20	T40N	R11W	M 41	18	00	123	08	00	900			1931		47	
F6 8045	SCOTIA	139	SEC 07	T01N	R01E	H 40	29	00	124	06	00	900			1926		12	
F3 8083-01	SEIAO VALLEY R S	1371	SEC 11	T46N	R12W	R M 41	50	36	123	11	42	905			1953		47	
F7 8162	SHELTER COVE	55	SEC 16	T05S	R01E	H 40	02		124	04		900			1959		12	
F6 8163	SHERWOOD VALLEY	2170	SEC 32	T20N	R14W	F M 39	32	36	123	26	30	901			1958		23	
F0 8311-01	SMITH RIVER 2 WNW	195	SEC 21	T18N	R01W	A H 41	56	30	124	10	42	000			1951		08	
F3 8346	SOMESBAR 1W	520	SEC 04	T11N	R06E	H 41	23	00	123	29	00	900			1954		12	
F6 8490	STANDISH HICKEY PARK	850	SEC 03	T23N	R17W	F M 39	52	30	123	43	30	900			1949		23	
F4 9024	TRINITY DAM VISTA PT	2500	SEC 16	T34N	R08W	M 40	48	00	122	46	00	900			1959		53	
F1 9053	TULELAKE	4035	SEC 06	T47N	R05E	M 41	58	00	121	28	00	900			1932		47	
F1 9057	TULELAKE INSP STN	4408	SEC 31	T44N	R07E	F M 41	36		121	12		000	049057	1953		25		
F7 9177	UPPER MATTOLE	255	SEC 33	T02S	R01W	H 40	15	00	124	11	00	900			1886		12	
F4 9490	WEAVERVILLE RANGER S	2050	SEC 12	T33N	R10W	M 40	44	00	122	56	00	900			1869		53	
F2 9499	WEED FD	3593	SEC 01	T41N	R05W	M 41	26	00	122	23	00	900			1957		47	
F6 9527	WEOTT 2SE	600	SEC 12	T02S	R02E	H H 40	18	29	123	53	40	000			1961		12	
F7 9654	WHITETHORN	1050	SEC 15	T05S	R02E	E M 40	01	18	123	56	12	000			1962		12	
F6 9684	WILLITS 1 NE	1350	SEC 17	T18N	R13W	M 39	25	00	123	21		900			1950		23	
F6 9685	WILLITS HOWARD RS	1925	SEC 05	T17N	R13W	M 39	21	00	123	19	00	900			1935		23	
F6 9686	WILLITS NW PAC RR	1365	SEC 18	T18N	R13W	L M 39	24	12	123	21	06	006			1911		05 23	
F1 9691-02	WILLOW CREEK RANCH	5200	SEC 06	T46N	R11E	G M 41	50		120	45		900	PN9692	1960		25		
F2 9866	YREKA	2631	SEC 27	T45N	R07W	M 41	43	00	122	38	00	900			1871		47	
F6 9940	ZENIA 1 SSE	2880	SEC 22	T03S	R06E	G H 40	11	18	123	28	54	000			1950		53	

TABLE A-2  
PRECIPITATION DATA FOR 1964-65  
NORTH COASTAL AREA

Station	Precipitation in inches												
	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
SMITH RIVER													
CRESCENT CITY 1 N	62.08	2.15	0.23	0.14	1.87	13.39	18.58	10.97	2.31	1.11	9.59	1.32	0.42
CRESCENT CITY 7 ENE	84.12	1.65	0.38	0.50	1.40	14.61	33.18	15.02	3.98	1.19	10.00	1.67	0.54
CRESCENT CITY 11 E	110.75	1.24	0.00	0.14	1.60	18.16	50.24	20.98	4.32	1.20	10.60	1.59	0.68
ELK VALLEY	95.95	0.35	0.23	T	1.16	17.74	47.82	14.73	2.89	1.25	8.46	0.68	0.64
FORT DICK	-	0.51	0.00	0.29	1.69	21.19	-	-	4.24	-	-	-	0.37
GASQUET RANGER STA	99.03	0.84	0.63	0.06	1.46	16.82	44.08	18.87	3.55	1.28	9.49	1.38	0.57
IDLEWILD HMS	94.27	0.55	0.14	0.04	0.85	16.57	47.59	12.91	3.31	1.00	9.45	1.10	0.76
PATRICKS PT ST PK	83.99	2.00	0.10	0.00	3.14	20.69	25.30	14.31	3.32	1.89	11.72	0.60	0.92
SMITH RIVER 2 WNW	91.36	4.60	0.75	0.20	3.80	16.70	23.00	17.70	4.00	2.05	14.35	3.70	0.51
LOST RIVER													
DORRIS INSPECT STA	14.54	0.40	0.21	0.03	0.33	1.89	6.30	2.00	0.12	0.05	1.72	0.18	1.31
GRASS LAKE HMS	22.84	0.68	0.10	T	0.20	4.01	10.75	2.07	0.23	0.17	2.75	0.09	1.79
LAVA BEDS NAT MON	19.53	0.34	0.18	0.07	0.09	1.23	6.15	4.78	0.10	0.03	2.54	1.02	3.00
MOUNT HEBRON R S	16.46	0.33	0.11	0.12	0.10	2.05	8.07	1.42	0.09	0.04	2.69	0.20	1.24
TULELAKE	14.84	0.69	0.06	0.02	0.22	1.12	5.87	2.54	0.10	0.07	1.50	0.39	2.26
TULELAKE INSP STN	13.45	0.25	0.18	0.05	0.11	1.43	4.38	2.18	0.13	0.04	1.56	0.28	2.86
WILLOW CREEK RANCH	-	0.18	0.46	0.00	0.70	2.23	7.27	2.33	0.60	0.04	1.59	0.42	-
SHASTA-SCOTT													
BIG SPRINGS 4 E	12.35	1.00	0.00	0.00	0.11	0.32	5.60	1.36	0.00	0.04	3.03	0.18	0.71
CALLAHAN RANGER STA	29.33	0.28	T	0.11	0.54	3.03	14.63	4.03	1.12	0.07	3.42	0.15	1.95
ETNA	-	0.62	0.03	0.00	0.41	4.96	20.58	-	0.93	0.12	2.58	0.34	0.42
FORT JONES 6 ESE	-	0.90	0.07	0.15	0.29	2.59	10.47	-	0.75	0.16	2.17	0.37	0.82
FORT JONES RANGER ST	24.60	0.44	0.02	0.19	0.39	3.24	11.90	4.48	0.82	0.01	2.56	0.23	0.32
GAZELLE - EPPERSON	18.62	0.76	0.00	0.31	0.28	1.36	8.75	1.79	0.39	0.11	3.15	0.73	0.99
GAZELLE TUCKER	19.76	0.64	0.07	0.08	0.21	1.98	9.78	2.00	0.32	0.04	2.97	0.59	1.08
GREENVIEW	24.89	0.06	0.00	0.00	0.40	2.95	14.56	3.75	0.60	0.00	1.39	0.30	0.88
LITTLE SHASTA	15.73	0.75	0.00	0.11	0.36	1.59	6.71	1.45	0.28	1.10	2.21	0.22	0.95
MONTAGUE	15.49	0.82	0.00	0.09	0.26	1.75	7.70	1.57	0.30	0.00	2.16	0.00	0.84
MONTAGUE 3 NE	-	0.48	0.00	0.07	0.34	1.91	6.43	-	-	-	-	-	-
WEED FO	34.34	0.23	0.04	0.26	0.92	3.49	12.58	5.22	1.10	0.27	7.40	1.23	1.60
YREKA	23.20	0.84	0.02	0.13	0.30	1.84	13.71	3.02	0.68	0.02	1.96	0.37	0.31
KLAMATH RIVER													
CECILVILLE 5 SE	-	0.14	0.04	0.26	1.07	-	-	-	-	-	-	-	-
CLEAR CREEK	71.72	0.52	0.00	0.23	0.95	11.50	33.33	15.71	2.15	0.51	6.39	0.15	0.28
COPCO DAM NO 1	21.22	0.29	0.22	0.08	0.21	2.27	10.71	3.33	0.48	0.05	2.62	0.23	0.73
FOOTHILL SCHOOL	19.21	1.08	0.00	0.20	0.39	1.63	9.09	1.78	0.32	0.59	2.84	0.15	1.14
FORKS OF SALMON	-	0.09	0.00	0.04	0.89	8.21	29.67	-	-	0.74	2.96	-	0.64
HAPPY CAMP RANGR STA	62.44	0.34	0.00	0.13	0.93	10.92	30.39	11.36	1.60	0.31	6.04	0.12	0.30
HILTS	26.37	0.11	0.06	0.06	0.38	2.56	13.74	3.96	1.08	1.07	2.56	0.52	0.27
KLAMATH	-	1.72	0.03	0.12	1.33	21.11	30.59	-	-	1.92	8.88	1.30	0.53
OAK KNOLL RANGER STA	34.88	0.20	0.08	0.05	0.61	3.85	17.71	6.82	1.02	0.17	3.53	0.38	0.46
ORLEANS	62.20	0.41	0.00	0.00	0.85	12.09	28.94	11.52	1.79	1.32	4.53	0.10	0.65
SAWYERS BAR R S	51.79	0.38	0.10	0.26	0.80	7.90	25.84	9.51	0.27	1.49	4.56	0.16	0.52
SEIAD VALLEY R S	53.67	0.65	T	0.01	0.57	7.65	28.11	9.52	1.73	0.22	4.71	0.22	0.28
SOMESBAR 1W	-	0.29	0.15	0.37	0.98	12.49	25.39	-	4.06	0.93	6.00	0.35	-
TRINITY RIVER													
BIG BAR RANGER STA	45.01	0.09	0.00	T	1.24	7.88	20.40	8.23	1.07	0.96	4.57	0.40	0.17
BURNT RANCH 1S	51.60	0.16	0.00	0.00	1.42	9.14	22.59	9.54	1.04	1.20	5.84	0.09	0.58
BURNT RCH HMS	46.59	0.05	0.00	0.00	1.07	9.32	22.24	*	*	7.81	5.64	*	0.46
COFFEE CREEK RS	59.09	0.00	0.40	0.10	4.36	10.29	21.37	11.21	1.97	1.23	7.87	0.15	0.14
FOREST GLEN	73.89	0.50	0.00	0.02	2.58	11.92	33.63	13.43	1.80	1.75	7.55	0.08	0.63
HAYFORK RANGER STA	38.77	0.21	0.00	0.35	1.67	7.26	15.55	7.51	0.40	1.40	4.33	0.00	0.09
HIDDEN VALLEY RCH	75.49	0.43	T	0.13	3.17	13.19	31.96	16.41	1.50	1.83	6.49	0.02	0.36
HOOPA	68.74	0.13	0.05	0.01	0.38	12.98	33.88	11.63	1.70	1.09	6.19	0.07	0.63
HOOPA 2 SE	-	0.05	0.04	0.01	0.68	13.06	31.43	11.73	1.72	0.94	8.70	0.04	-
HYAMPOM	53.80	0.14	0.00	0.00	1.70	10.67	24.58	9.15	0.89	1.03	4.93	0.02	0.69

TABLE A-2 (Continued)  
PRECIPITATION DATA FOR 1964-65  
NORTH COASTAL AREA

Station	Precipitation in inches												
	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
TRINITY RIVER													
SALYER RANGER STA	57.97	0.24	0.06	0.12	1.05	11.41	26.06	11.11	1.14	1.20	4.86	0.10	0.62
TRINITY DAM VISTA PT	41.21	0.37	0.00	0.75	1.78	7.73	16.15	5.95	1.10	1.13	5.46	0.65	0.14
WEAVERVILLE RANGER S	46.02	0.01	0.00	0.68	2.31	9.32	17.69	8.46	1.43	1.13	4.39	0.44	0.16
MAD RIVER													
ARCATA A P	49.07	1.03	0.35	0.04	1.97	12.80	16.52	6.94	1.46	1.17	5.83	0.50	0.46
BIG LAGOON	61.44	1.36	0.02	0.18	2.01	13.87	20.99	10.69	2.53	1.00	7.51	0.86	0.44
BLUE LAKE	56.90	0.91	0.47	0.03	1.28	12.69	22.14	9.12	1.62	1.40	6.20	0.45	0.59
BLUE LAKE REDWOOD CR	-	0.14	0.26	0.00	-	9.11	-	-	1.52	1.64	6.12	0.29	0.99
FLDDBROOK 4 D RCH	93.45	1.80	0.00	0.05	2.25	22.20	34.85	16.30	2.25	1.85	8.85	0.75	2.30
HONOR CAMP 42	84.81	1.52	0.04	0.11	1.19	18.12	38.05	13.17	2.26	1.85	6.70	0.72	1.08
KORSEL	-	0.91	0.00	0.00	1.19	14.67	22.46	10.45	1.69	1.47	5.35	0.47	-
LITTLE RIVER	59.68	1.64	0.60	0.12	2.55	12.99	17.12	9.70	2.28	2.26	8.48	1.04	0.90
MAD RIVER RANGER STA	74.09	0.20	0.08	0.00	2.40	11.48	36.67	11.56	1.69	2.00	7.42	0.22	0.37
ORICK 3 NNE	69.51	2.62	0.11	0.32	1.63	15.88	24.10	11.50	3.03	0.93	7.63	1.25	0.51
ORICK ARCATA REDWOOD	63.16	1.25	0.02	0.23	1.50	14.46	20.98	10.67	3.30	1.19	7.83	1.26	0.47
ORICK PRAIRIE CREEK	66.97	0.85	0.43	0.25	1.61	15.56	22.24	12.37	3.33	1.11	7.58	1.23	0.41
EEL RIVER													
ADANAC LODGE	87.33	0.05	0.05	0.00	2.81	16.40	40.87	14.24	2.55	3.03	6.88	0.22	0.23
ALDERPOINT	60.12	T	0.03	0.00	1.79	10.82	26.43	12.07	1.73	1.87	5.36	T	0.02
BRANSCOMB 2 NW	100.07	0.03	0.00	0.01	3.03	19.08	48.07	13.99	2.94	3.82	8.47	0.30	0.33
BRIDGEVILLE 4 NNW	79.86	0.10	0.14	0.00	2.83	16.72	33.31	13.56	2.05	2.11	8.25	0.20	0.59
BRIDGEVILLE P O	68.78	1.01	0.05	0.00	2.97	14.23	26.03	13.24	1.17	1.75	7.55	0.29	0.49
BULL CREEK	-	0.23	0.00	0.00	4.73	14.52	31.93	16.99	2.21	2.11	11.13	-	-
BURLINGTON ST PARK	71.75	0.18	0.00	0.00	3.84	13.05	28.07	11.63	2.20	1.73	10.83	0.03	0.19
CEDAR CREEK HATCHERY	-	-	0.05	0.00	2.81	14.55	-	-	-	-	-	-	-
COVELO	51.45	0.11	0.00	0.00	1.05	10.42	22.50	10.66	1.13	2.08	3.43	0.00	0.07
CUMMINGS	91.64	0.05	0.08	0.00	2.88	15.42	44.75	15.06	2.26	2.95	7.78	0.11	0.30
DOS RIOS	-	0.06	0.00	0.00	1.09	10.76	31.37	-	-	-	4.98	0.00	-
EUREKA WB CITY	40.62	0.83	0.03	0.07	1.82	12.11	10.96	5.82	1.36	1.23	5.60	0.44	0.35
FERNDAL 2NW	-	0.23	0.22	0.07	2.59	11.50	18.55	-	-	1.06	6.01	0.29	0.51
FORTUNA	46.29	0.26	0.39	0.05	2.10	10.49	15.91	7.40	1.35	1.25	6.43	0.28	0.38
FOX CAMP	-	0.28	0.00	0.00	6.17	20.91	40.00	-	-	-	-	-	-
GARBERVILLE	69.30	0.08	0.00	0.00	3.17	10.68	30.34	13.38	1.80	1.89	7.64	0.03	0.29
GARBERVILLE HMS	69.81	0.08	0.00	0.08	3.02	10.70	32.12	11.88	1.68	1.82	8.27	0.02	0.14
HARRIS 7 SSE	80.00	0.00	0.03	0.00	2.42	13.78	40.57	13.32	1.89	2.00	5.59	0.00	0.40
HARTSOOK INN	-	0.16	0.00	0.00	3.15	12.51	-	-	-	-	-	-	-
HIGH ROCK	70.85	0.11	0.10	0.01	3.61	11.88	27.57	13.07	2.17	1.69	10.35	0.09	0.20
HOLMES	-	0.11	0.08	0.00	3.18	12.15	-	-	-	-	-	-	-
KNEELAND 10 SSE	74.60	0.46	0.03	0.04	1.78	17.23	32.84	9.83	1.78	2.03	7.34	0.32	0.92
LAKE MOUNTAIN	-	0.13	0.00	0.12	2.16	12.92	31.87	-	1.70	1.90	5.47	0.05	0.33
LAKE PILLSBURY NO 2	-	T	0.00	0.31	2.60	11.70	33.07	12.72	1.54	2.22	5.63	0.00	-
LAYTONVILLE	-	0.06	0.04	0.00	1.77	12.17	37.14	-	1.92	2.11	6.10	0.00	0.10
MINA 3 NW	63.74	0.00	0.20	0.00	2.42	12.73	28.42	9.69	1.79	2.20	5.77	0.00	0.52
MIRANDA 4 SE	-	-	-	-	-	-	-	-	1.60	1.70	7.80	0.00	-
MIRANDA SPENGLER RCH	53.84	0.02	0.00	0.00	2.78	9.49	23.55	10.60	0.64	1.27	5.34	0.00	0.15
MYERS FLAT - CRANE	-	0.24	0.00	0.00	3.86	12.16	-	-	-	-	-	-	-
OLD HARRIS	75.98	0.18	0.03	0.00	2.50	13.88	34.53	12.15	2.32	2.48	7.46	0.20	0.25
PHILLIPSVILLE 1SE	67.03	0.11	0.00	0.00	2.83	12.22	28.15	11.99	1.62	1.92	7.77	0.20	0.22
RICHARDSON GROVE	84.64	0.00	0.00	0.00	3.25	11.55	39.86	17.17	2.12	2.35	8.01	0.14	0.19
SCOTIA	52.84	0.16	0.10	0.03	2.73	9.74	18.37	9.50	1.78	1.20	8.77	0.18	0.28
SHERWOOD VALLEY	90.88	0.15	0.04	0.00	2.39	16.77	44.99	12.62	2.69	3.33	7.28	0.13	0.19
STANDISH HICKEY PARK	83.62	0.04	0.05	0.00	2.81	13.59	40.12	14.87	2.20	2.46	7.01	0.30	0.17
WEOTT 2SE	70.06	0.20	0.00	0.00	3.83	12.50	27.16	12.76	2.24	1.85	8.89	0.07	0.56
WILLITS 1 NE	66.15	0.15	0.00	0.00	1.68	12.78	31.41	10.23	1.92	2.66	5.17	0.06	0.09
WILLITS HOWARD RS	-	0.10	0.00	0.00	1.81	13.59	26.01	9.69	1.98	2.60	6.57	0.00	-
WILLITS NW PAC RR	64.05	0.00	0.00	0.00	1.83	12.87	28.65	12.23	0.77	2.53	5.14	0.03	0.00
ZENIA 1 SSE	76.86	0.33	0.10	0.25	3.01	13.76	32.85	12.82	2.34	2.47	8.51	0.05	0.37
MATTOLE RIVER													
CAPE RANCH	61.41	0.93	0.07	0.00	3.93	14.91	20.25	5.85	1.58	1.92	10.87	0.55	0.55
FERNDAL 8 SSW	53.39	0.52	0.39	0.42	3.01	12.22	15.77	6.47	2.28	1.48	9.89	0.38	0.56
HONEYDEW 2 WSW	108.15	0.20	0.05	0.00	6.09	17.71	39.15	21.00	3.49	2.28	17.78	0.18	0.22
HONEYDEW HUNTER	107.25	0.22	0.04	0.00	6.50	19.67	37.17	15.82	6.64	2.91	18.03	0.25	0.00
MANN RANCH	-	-	0.28	-	6.21	19.42	55.01	-	-	-	-	-	-
PETROLIA	63.37	0.59	0.00	0.00	3.26	16.02	17.77	10.81	2.18	2.19	10.23	0.32	0.00
PETROLIA 4 NW	68.70	0.35	0.20	0.00	4.05	16.20	21.40	9.25	3.05	1.80	10.95	0.85	0.60
SHELTER COVE	-	0.13	0.00	0.00	1.95	15.60	18.04	7.58	1.72	2.96	-	-	-
UPPER MATTOLE	81.56	0.18	0.00	0.00	5.16	16.14	25.88	14.93	2.61	2.19	13.99	0.20	0.28
WHITETHORN	99.31	0.03	0.00	0.00	4.18	22.99	39.18	13.96	2.76	3.23	12.39	0.25	0.33



TABLE A-3  
STORAGE GAGE PRECIPITATION DATA FOR 1964-65  
NORTH COASTAL AREA

Station	Agency	1964-65 Season		
		Date	Date	Precipitation
		: Charged	: Measured	: in Inches
Beswick 7 S	DWR Northern District	7/18/64	6/30/65	51.41
Blue Creek Mountain Lookout	US Weather Bureau	8/15/63	8/20/64	116.45
		8/20/64	8/18/65	139.76
Boardcamp Mountain	DWR Northern District	7/30/64	6/28/65	137.43
Bray 10 WSW	DWR Northern District	7/18/64	8/30/65	27.92
Camp Six Lookout	DWR Northern District	6/30/64	6/29/65	119.21
Crowder Flat	DWR Northern District	7/ 8/64	6/30/65	22.90
Gazelle Lookout	DWR Northern District	9/16/64	6/29/65	25.33
Long Bell Station	DWR Northern District	7/10/64	7/ 1/65	34.03
Medicine Lake	DWR Northern District	7/17/64	6/30/65	56.90
Mumbo Basin	DWR Northern District	7/ 1/64	7/ 1/65	63.52
Plaskett	DWR Northern District	7/ 3/64	7/ 2/65	93.25

TABLE A-4  
TEMPERATURE DATA FOR 1964-65  
NORTH COASTAL AREA

Station			Temperature in Degrees Fahrenheit												
Number	Name		Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
F5-0901	BLUE LAKE	MAXIMUM	94	79	82	94	82	70	64	66	67	76	72	69	74
		AVG. MAX.	63.6	70.2	71.1	71.7	66.0	59.2	57.1	57.8	58.5	63.2	60.7	63.8	64.4
		AVERAGE	55.1	62.2	62.7	59.0	56.8	51.8	51.7	50.2	50.0	52.7	53.3	54.4	56.8
		AVG. MIN.	46.6	54.3	54.3	46.3	47.6	44.3	46.3	42.5	41.6	42.2	45.9	45.1	49.1
		MINIMUM	31	46	44	41	39	31	32	32	32	33	36	34	43
F6-1083	BRIDGEVILLE P O	MAXIMUM	106	97	90	106	94	72	61	65	70	76	84	-	-
		AVG. MAX.	-	80.8	78.9	78.8	74.7	57.0	53.1	55.5	60.6	64.9	64.5	-	-
		AVERAGE	-	67.8	66.6	62.8	60.0	48.6	47.6	47.6	49.2	53.1	54.6	-	-
		AVG. MIN.	-	54.9	54.4	46.8	45.3	40.3	42.1	39.8	37.7	41.3	44.8	-	-
		MINIMUM	27	48	46	42	37	27	29	32	29	32	36	-	-
F6-1181	BULL CREEK	MAXIMUM	-	101	98	-	-	-	-	64	68	77	85	-	-
		AVG. MAX.	-	84.9	84.8	-	-	-	-	53.6	57.2	62.2	61.5	-	-
		AVERAGE	-	67.7	65.5	-	-	-	-	46.0	46.0	49.8	52.2	-	-
		AVG. MIN.	-	50.5	46.2	-	-	-	-	38.4	34.8	37.3	42.9	-	-
		MINIMUM	-	38	42	-	-	-	-	32	28	30	34	-	-
F6-1210	BURLINGTON ST PARK	MAXIMUM	-	-	-	-	-	-	-	62	66	69	82	85	90
		AVG. MAX.	-	-	-	-	-	-	-	53.8	58.3	62.5	63.1	72.4	77.6
		AVERAGE	-	-	-	-	-	-	-	47.3	48.8	52.4	53.9	59.2	63.7
		AVG. MIN.	-	-	-	-	-	-	-	40.8	39.4	42.3	44.7	46.0	49.8
		MINIMUM	-	-	-	-	-	-	-	33	33	36	37	38	43
F4-1215-15	BURNT RCH HMS	MAXIMUM	-	106	102	-	-	-	62	62	69	72	86	88	96
		AVG. MAX.	-	87.1	91.5	-	-	-	-	-	-	-	-	-	81.9
		AVERAGE	-	69.2	71.2	-	-	-	-	-	-	-	-	-	67.9
		AVG. MIN.	-	51.2	50.8	-	-	-	-	-	-	-	-	-	53.8
		MINIMUM	-	40	47	-	-	-	29	33	26	29	29	34	46
F6-1608	CEDAR CREEK HATCHERY	MAXIMUM	107	-	102	107	95	70	-	-	-	-	-	-	-
		AVG. MAX.	-	-	87.0	83.1	77.5	53.8	-	-	-	-	-	-	-
		AVERAGE	-	-	68.8	63.8	60.9	46.6	-	-	-	-	-	-	-
		AVG. MIN.	-	-	50.5	44.6	44.3	39.3	-	-	-	-	-	-	-
		MINIMUM	-	-	44	40	34	25	-	-	-	-	-	-	-
F3-1990	COPCO DAM NO 1	MAXIMUM	107	107	105	93	92	64	56	50	60	67	83	89	95
		AVG. MAX.	67.9	94.1	92.1	84.8	77.7	51.0	43.5	42.5	49.4	59.0	63.6	73.1	83.6
		AVERAGE	54.8	75.6	73.5	66.4	61.6	42.0	38.4	36.2	40.1	47.0	51.8	58.1	66.8
		AVG. MIN.	41.7	57.0	54.9	48.0	45.5	33.1	33.3	29.9	30.8	34.9	40.0	43.1	50.0
		MINIMUM	19	49	43	39	32	20	19	20	24	29	31	30	40
F1-2480	DORRIS INSPECT STA	MAXIMUM	94	94	92	82	80	60	52	52	60	63	78	82	86
		AVG. MAX.	60.3	82.2	80.6	72.0	67.0	46.7	40.7	40.0	47.0	53.0	57.4	64.1	73.0
		AVERAGE	46.1	63.9	61.4	53.0	49.8	35.4	33.4	31.2	35.6	39.3	45.4	48.2	56.6
		AVG. MIN.	31.9	45.6	42.3	34.0	32.7	24.2	26.2	22.4	24.1	25.6	33.5	32.4	40.3
		MINIMUM	-3	35	28	22	18	4	8	-3	14	9	22	21	28
F5-3041	FIELDBROOK 4 D RCH	MAXIMUM	99	80	85	99	81	65	63	61	64	68	71	-	75
		AVG. MAX.	-	71.0	72.8	73.5	68.2	54.3	51.8	50.7	54.2	58.0	58.2	-	63.5
		AVERAGE	-	61.1	61.6	59.8	55.6	46.7	45.6	44.1	44.6	47.6	50.3	-	55.5
		AVG. MIN.	-	51.2	50.4	46.2	43.1	39.1	39.5	37.5	35.1	37.3	42.4	-	47.1
		MINIMUM	24	46	44	41	33	27	24	28	27	30	34	-	40
F6-3322-01	GARBERVILLE HMS	MAXIMUM	110	110	94	102	86	68	60	60	69	74	84	87	90
		AVG. MAX.	67.4	86.2	83.9	82.2	74.8	56.1	52.1	52.4	59.2	62.9	63.4	66.8	69.4
		AVERAGE	54.8	68.4	66.8	62.6	58.7	46.8	45.6	44.8	47.0	50.4	53.4	54.3	58.2
		AVG. MIN.	42.1	50.7	49.8	43.0	42.6	37.6	39.2	37.3	34.9	37.8	43.3	41.8	46.5
		MINIMUM	26	42	45	40	36	26	27	30	28	31	33	34	40
F2-3363	GAZELLE LOOKOUT	MAXIMUM	-	95	92	-	-	-	-	-	-	-	-	-	-
		AVG. MAX.	-	83.6	83.0	-	-	-	-	-	-	-	-	-	-
		AVERAGE	-	69.9	68.3	-	-	-	-	-	-	-	-	-	-
		AVG. MIN.	-	56.2	53.6	-	-	-	-	-	-	-	-	-	-
		MINIMUM	-	42	40	-	-	-	-	-	-	-	-	-	-
F1-3564	GRASS LAKE HMS	MAXIMUM	-	91	-	77	70	59	58	49	52	58	59	64	88
		AVG. MAX.	-	81.1	-	67.7	59.8	43.6	41.6	38.7	45.4	49.3	48.2	50.8	72.7
		AVERAGE	-	62.1	-	48.2	44.4	30.8	31.6	30.2	34.4	37.2	38.3	41.4	54.6
		AVG. MIN.	-	43.1	-	28.6	29.0	18.0	21.6	21.6	23.5	25.1	28.3	32.0	36.5
		MINIMUM	-6	34	-	23	17	-6	4	-2	14	15	19	18	27
F4-3949	HIDDEN VALLEY RCH	MAXIMUM	102	102	102	99	90	62	58	58	65	75	86	88	96
		AVG. MAX.	68.6	89.5	90.4	85.4	75.9	50.6	47.9	45.0	56.3	63.6	62.7	72.6	82.8
		AVERAGE	55.0	71.6	70.8	65.2	59.8	43.3	42.8	39.2	44.2	49.2	51.8	56.8	65.2
		AVG. MIN.	41.4	53.8	51.0	44.9	43.6	36.0	37.6	33.3	32.2	34.8	40.8	41.1	47.7
		MINIMUM	20	46	44	39	33	24	26	20	26	28	30	30	37
F6-4037-02	HOLMES	MAXIMUM	-	89	87	98	91	68	-	-	-	-	-	-	-
		AVG. MAX.	-	74.9	74.8	75.1	72.6	56.5	-	-	-	-	-	-	-
		AVERAGE	-	63.9	63.6	61.8	59.8	48.9	-	-	-	-	-	-	-
		AVG. MIN.	-	52.9	52.5	48.6	47.0	41.3	-	-	-	-	-	-	-
		MINIMUM	-	45	47	41	36	28	-	-	-	-	-	-	-

TABLE A-4 (Continued)  
TEMPERATURE DATA FOR 1964-65  
NORTH COASTAL AREA

Station		Temperature in Degrees Fahrenheit												
Number	Name	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
F5-4077	HONOR CAMP 42	MAXIMUM	96	87	88	96	87	72	60	72	68	70	72	82
		AVG. MAX.	60.4	69.7	70.5	70.8	69.0	52.0	48.2	50.8	56.0	57.8	60.5	65.8
		AVERAGE	50.5	58.8	58.8	57.6	57.2	44.8	42.0	43.7	45.2	47.1	49.6	54.7
		AVG. MIN.	40.6	48.0	47.0	44.3	45.3	37.7	35.9	36.6	34.5	36.4	38.7	43.6
		MINIMUM	22	39	37	38	36	26	26	22	26	30	28	35
F0-4202	IDLEWILD HMS	MAXIMUM	-	104	92	98	90	64	58	-	-	-	-	-
		AVG. MAX.	-	90.0	86.7	82.8	75.4	50.2	44.7	-	-	-	-	-
		AVERAGE	-	71.0	67.7	64.0	59.7	43.6	42.4	-	-	-	-	-
		AVG. MIN.	-	52.1	48.7	45.3	44.0	36.9	40.2	-	-	-	-	-
		MINIMUM	-	42	40	40	34	24	24	-	-	-	-	-
F5-4602	KORBEL	MAXIMUM	-	84	91	101	85	66	65	66	69	76	78	-
		AVG. MAX.	-	72.2	75.3	76.6	72.4	57.3	53.4	56.7	61.5	63.8	62.6	67.1
		AVERAGE	-	62.2	63.0	61.8	59.3	49.8	47.2	48.6	47.8	52.0	53.6	55.0
		AVG. MIN.	-	52.1	50.7	47.1	46.2	42.4	41.1	40.6	34.1	40.1	44.6	42.8
		MINIMUM	27	43	41	41	37	30	27	31	29	31	33	30
F2-5783	MONTAGUE	MAXIMUM	104	104	102	95	91	64	59	60	64	71	80	93
		AVG. MAX.	67.3	91.0	90.6	82.9	73.9	50.8	44.7	44.4	53.3	61.4	61.9	81.4
		AVERAGE	50.6	70.9	68.5	60.2	53.6	38.7	36.4	35.3	37.4	43.4	48.5	53.3
		AVG. MIN.	34.0	50.8	46.4	37.5	33.2	26.6	28.0	26.2	21.6	25.3	35.1	41.9
		MINIMUM	9	42	35	32	21	12	9	9	15	15	25	32
F6-6408	OLD HARRIS	MAXIMUM	108	108	100	108	96	66	62	68	65	82	90	97
		AVG. MAX.	65.1	87.7	87.5	84.3	77.5	53.7	47.3	48.5	51.8	55.6	54.9	63.3
		AVERAGE	53.0	71.1	69.8	66.4	63.1	45.8	40.6	40.8	40.7	44.4	46.2	50.4
		AVG. MIN.	40.8	54.5	52.1	48.6	48.7	37.8	33.8	33.1	29.6	33.1	37.5	37.4
		MINIMUM	18	42	40	40	36	28	18	18	20	28	26	36
F3-8083-01	SEIAD VALLEY R S	MAXIMUM	107	107	106	102	94	66	62	52	69	79	86	96
		AVG. MAX.	69.8	91.3	92.2	86.4	79.1	49.7	45.3	41.9	59.2	66.4	66.9	75.3
		AVERAGE	54.4	72.4	70.6	63.2	58.7	41.4	39.3	35.8	44.0	48.8	53.9	58.8
		AVG. MIN.	38.9	53.5	48.9	39.9	38.3	33.0	33.3	29.8	28.9	31.1	40.9	42.2
		MINIMUM	20	45	38	36	28	22	20	21	22	24	32	39
F6-8490	STANDISH HICKEY PARK	MAXIMUM	98	98	92	96	81	64	58	64	64	70	83	85
		AVG. MAX.	64.2	79.2	79.5	75.8	71.1	53.8	49.9	51.0	55.2	58.7	59.3	67.1
		AVERAGE	53.8	65.7	65.6	61.1	58.2	46.6	45.2	44.4	45.0	48.6	51.8	55.5
		AVG. MIN.	43.4	52.2	51.8	46.4	45.2	39.5	40.5	37.7	34.7	38.4	44.3	43.8
		MINIMUM	26	46	46	42	38	26	30	28	32	32	34	42
F1-9057	TULELAKE INSP STM	MAXIMUM	-	96	93	88	86	67	52	55	60	65	75	80
		AVG. MAX.	-	83.7	83.0	74.3	70.8	44.9	39.7	38.3	46.1	53.1	55.1	63.4
		AVERAGE	-	64.8	62.4	54.2	51.8	32.6	31.6	29.8	33.2	37.9	43.4	47.2
		AVG. MIN.	30.5	46.0	41.8	34.0	32.8	20.4	23.4	21.2	20.2	22.7	31.6	30.9
		MINIMUM	-3	40	32	26	22	6	3	-3	9	14	23	19

TABLE A-5  
EVAPORATION DATA FOR 1964-65  
NORTH COASTAL AREA

MONTHLY EVAPORATION														
NUMBER	STATION NAME		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
F6-3030	Ferndale 2 NW	Evap.	4.42	4.79	3.77	2.45	1.08	-	.70	-	2.36	2.66	4.32	4.23
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												
F3-4581-36	Klamath Falls Airport	Evap.	9.51	8.95	7.10	4.16	-	-	-	-	-	-	7.65	7.28
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												
F6-4698	Lake Pillsbury No. 2	Evap.	9.80	9.98	6.88	4.20	1.53	.62	.70	1.87	3.52	3.39	7.63	8.04
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												
F3-8083-01	Seiad Valley Ranger Station	Evap.	8.41	8.53	5.50	2.85	-	-	-	-	-	-	6.06	7.42
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												
F4-9024	Trinity Dam Vista Point	Evap.	10.07		9.89	6.35	3.25	-	-	-	-	2.66	7.26	8.41
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												
F1-9053	Tulelake	Evap.	9.51	8.95	7.10	4.16	-	-	-	-	-	4.78	7.96	7.38
		Wind Movement												
		Water Temp.												
		Avg. Max.												
		Water Temp.												

APPENDIX B  
SURFACE WATER FLOW





## SURFACE WATER FLOW

The Surface Water Measurement Program is a long-term, continuing hydrologic data activity of the Department that provides accurate measurements of water stages and corresponding streamflow discharges.

In this volume, daily mean discharges are reported in Table B-1 for the eight Department stream gaging stations located in the North Coastal Area. In addition, monthly and annual mean, maximum, and minimum flows are reported for the period October 1, 1964 through September 30, 1965.

The flows reported in Table B-2 are miscellaneous measurements collected during the course of the Department's North Coastal Area Investigation. The data shown in Table Nos. B-1 and B-2 have been determined from observations during the current water year by Department personnel.

### Definition of Terms

The following terms are commonly used:

Cubic foot per second is the unit rate of discharge of water. It is a measure of a cubic foot of water passing a given point in one second.

Acre-foot is the quantity of water required to cover one acre to a depth of one foot. It is equivalent to 43,560 cubic feet or 325,850 gallons.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, which is enclosed by a drainage divide.

Water year is the 12-month period from October 1 of one year through September 30 of the subsequent year and is normally designated by the calendar year in which it is terminated.

### Methods and Procedures

The program incorporates both field and office activities. The field activities include the installation and maintenance of gaging stations as well as the actual measurement of streamflow. An automatic water stage

recorder is in operation at all of the Department's stream gaging stations in the North Coastal Area. Measurement procedures which have been employed are consistent with those used by the U. S. Geological Survey.

The office work includes the preparation of data for computation by machine methods. This consists of developing a rating curve for each streamflow station from a series of instantaneous discharge measurements and a related formula. Manual computation of discharge is required when the direct stage-discharge relationship has been destroyed by ice forming on the control or by backwater from a tributary or control structure downstream. When flows at a single station are in excess of 140 percent of the highest measurement on the rating curve, the computed daily mean discharges from the electronic computer are shown as "estimates." Normally, the rating is good where there is a fixed channel and flow regimen at the station. The rating varies where aquatic growth or shifting sands are present. Where the rating is not permanent, more frequent measurements of discharge are necessary to accurately determine the daily mean discharge.

#### Accuracy

Accuracy of the flow records range between "excellent" (less than 5 percent error) and "good" (less than 10 percent error). The records of monthly and seasonal mean discharge and runoff are generally more accurate than the daily flow records. Four of the eight gaging stations reported in this bulletin are rated as "excellent". These include the gages on the Little Shasta River, Etna Creek, Moffett Creek, and Browns Creek. The remaining four gages on the Shasta River, Weaver Creek, North Fork Trinity River, and Big Creek are rated as "good".

#### Significant Figures

The following are the significant figures used in reporting streamflow data, consistent with the accuracy of measurements obtained:



1. Daily flow - Cubic feet per second

0.0 - 9.9	Tenths
10 - 99	2 Significant figures
100 - above	3 Significant figures

2. Mean flow - Cubic feet per second

0.0 - 99.9	Tenths
100 - 999	3 Significant figures
1000 - above	4 Significant figures

The water year totals are reported to a maximum of four significant figures.

Locations of individual measurement stations are given in the tables of flow. Locations numbers have been assigned in accordance with the Department's hydrologic procedures. The location number is a six-digit number. The first letter designates the hydrographic area; the first number the river basin, the second number the reach of the stream. The last three numbers are sequence numbers assigned to a specific station. The sequence numbers begin at the downstream end of the reach.

The streamflow tables are arranged in a downstream order. Stations on a tributary entering between two main stem stations are listed between those stations and in downstream order. A stream measurement or gaging station normally derives its name from the stream and the nearest post office (e.g., Weaver Creek near Douglas City).

Station descriptions and historical data are provided at the bottom of each table of flow. Gage heights are in feet above an assumed "local" datum plane.

The locations of the eight surface water measurement stations or gaging stations measured by the Department in the North Coastal Area are shown on Figure B-1.

## INDEX TO GAGING STATIONS

- 1 Little Shasta River near Montague (F-2-1300)
- 2 Shasta River at Edgewood (F-2-1700)
- 3 Etna Creek near Etna (F-2-5620)
- 4 Moffett Creek near Fort Jones (F-2-5420)
- 5 Browns Creek near Douglas City (F-4-1510)
- 6 Weaver Creek near Douglas City (F-4-1540)
- 7 North Fork Trinity River at Helena (F-4-2100)
- 8 Big Creek near Hayfork (F-4-4500)

## INDEX TO SAMPLING STATIONS

- 1a Shasta River near Yreka
- 1b Scott River near Fort Jones
- 1c Klamath River above Hamburg Reservoir Site
- 1f Klamath River below Iron Gate Dam
- 2a Solmon River at Somesbar
- 2b Klamath River near Seiad Valley
- 2c Klamath River at Orleans
- 3 Klamath River near Klamath
- 3a Smith River near Crescent City
- 3b Redwood Creek at Orick
- 4 Trinity River near Hoopa
- 4a Trinity River at Lewiston
- 4b Trinity River near Burnt Ranch
- 5 Eel River near McCann
- 5a Van Duzen River near Bridgeville
- 5b Outlet Creek near Longvale
- 5c Eel River, Middle Fork at Dos Rias
- 5d Eel River near Dos Rios
- 5e Mill Creek near Covelo
- 5f Williams Creek near Covelo
- 5g Eel River, Middle Fork at Eel River Ranger Station
- 5h Black Butte River near Covelo
- 6 Eel River at Scotia
- 6a Mad River near Arcata
- 7 Eel River, South Fork near Miranda
- 7a Mattole River near Petrolia
- 7b Bear River near Copetown

Figure B-1

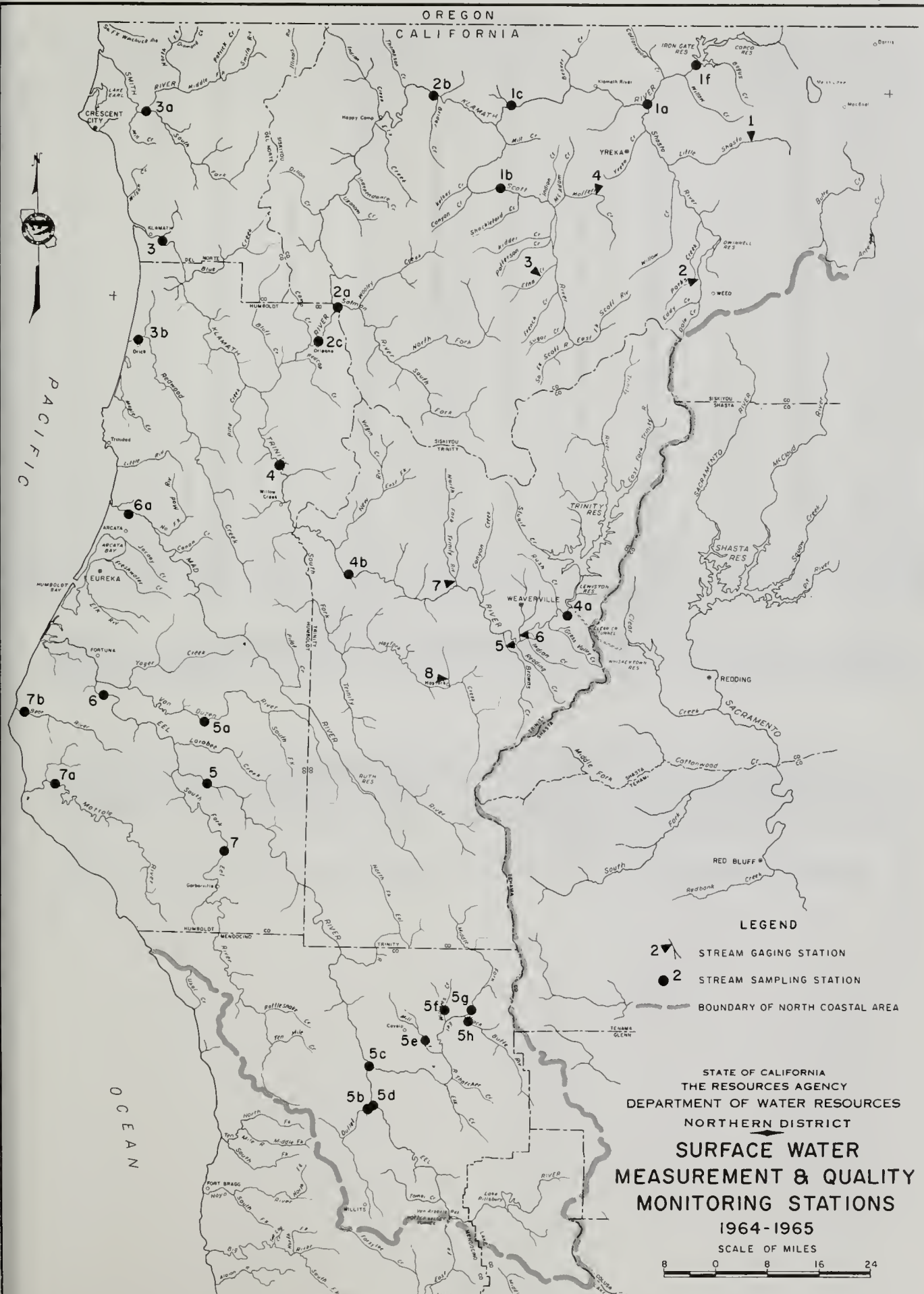


TABLE B-1  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F21700	SHASTA RIVER AT EDGEWOOD

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.
1	8.2*	46	71	93	127	94	131	175	90	26	11	11	1
2	8.4	49	60	100	119	90	114	147	82	23	13	12	2
3	8.9	48	43	111	115	87	79	125	83	20	14	10	3
4	11	47	37	92	109	82	72	108	87	20	12	10	4
5	12	48	34	568 E	130	84	73	54 *	79	20	12 *	10	5
6	11	50	32	381 E	110	82	88	86	70	19	13	10	6
7	11	51	28	213 *	102	80	78	76	74	16	13	8.8	7
8	13	78	30	148	97	81	86	72	71	15	12	8.3	8
9	14	55	32	135	94	80	84	72	71	15	9.6	19	9
10	14	60 *	39	147	88	83	83	71	66	15	9.0	8.1	10
11	15	40	55	194	87	78	85	73	65	14	9.3	8.4	11
12	12	38	30	138	98	73	76	74	58	15	13	7.6	12
13	13	31	22	118	113	70	78	70	54	15	13	8.0	13
14	16	28	22	108	109	67	124	94	73 *	13	13	8.1	14
15	19	25	24	104	104	67	494 E	106	71	13	12	7.4	15
16	19	25	20	101	99	66	235	122	54	32	12	8.0	16
17	20	25	17	98	98	64	156	126	69	70	13	8.5	17
18	19	24	17	102	98	60 *	219	110	73	38	18	9.2	18
19	19	24	27	111	96 *	60	252	110	57	21	16	9.8	19
20	21	22	74	117	95	75	341 *	106	44	17	15	10	20
21	24	22	2720 E	112	96	76	305 E	133	41	15	16	10	21
22	26	25	5420 E	118	94	81	233 E	109	39	14	15	9.4	22
23	27	25	1960 E	364 E	92	80	184 E	87	43	14	14	9.6	23
24	29	28	1190 E	233	90	79	176 E	79	51	12	13	8.7	24
25	30	23	616 E	167	93	76	168 E	75	48	12	14	8.3	25
26	31	18	441 E	152	91	71	160 E	76	53	12	15	8.5	26
27	35	16	277	138	140	70	173 E	82	42	10	14	8.6	27
28	38	17	192	129	101	63	184 E	97	35	9.9	13	8.4	28
29	42	16	151	130		52	228	109	32	10	12	9.2	29
30	43	24	127	138		49	209	115	25	10	11	8.4	30
31	43		107	136		50		110		9.6	11		31
MEAN	21.0	34.3	449	161	103	73.2	166	98.4	60.0	18.2	12.9	9.4	MEAN
MAX.	43.0	78.0	5420 E	568 E	140	94.0	494 E	175	90.0	70.0	18.0	19.0	MAX.
MIN.	8.2	16.0	17.0	92.0	87.0	49.0	72.0	54.0	25.0	9.6	9.0	7.4	MIN.
AC. FT.	1294	2039	27600	9909	5722	4502	9854	6048	3570	1122	795	558	AC.

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR OBSERVATION  
OF NO FLOW MADE THIS DAY  
# - E AND \*

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
101	9600 E	8.86	12	22	0510	2.8	1.79	5	5	2240	73010

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
41 28 20	122 26 18	SE20 42N 5W	9600 E	8.86	12/22/64	MAR 61-DATE	MAR 61-DATE	1961		0.00	LOCAL
Station located on downstream side of Edgewood Road bridge, 1.2 miles north of Edgewood. Tributary to Dwinell Reservoir. Stage-discharge relationship at times affected by ice.											

TABLE B-1 (Continued)  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F21300	LITTLE SHASTA RIVER NEAR MONTAGUE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	4.0	5.2	39	44 E	37 E	22 E	29 E	56 E	25	13	7.3	5.3	1
2	3.8	6.7	35	41 E	35 E	21 E	48 E	53 E	23	12	7.1	5.4	2
3	4.0	6.1	24	40 E	34 E	20 E	75 E	51 E	23	11	6.7	5.4	3
4	4.2	6.1	17	44 E	33 E	19 E	87 E	50 E	22	11	6.3	5.2	4
5	4.2	5.7	16	89 E	32 E	19 E	99 E	49 #	21	10	6.3	5.4	5
6	4.2	5.8	14	108 E	31 E	19 E	97 E	47 E	21	10	5.5*	5.4	6
7	4.2	6.0	15	65 E	31 E	19 E	88 E	44 E	20	9.9	5.4	4.9	7
8	4.0	8.0	55 *	55 E	30 E	19 E	76 E	42 E	19	9.6	5.2	4.8	8
9	3.8	12	67	52 E	29 E	18 E	76 E	38 E	19	9.7*	5.2	5.2	9
10	3.8	8.8	111	56 E	29 E	18 E	84 E	36 E	18	9.5	5.2	4.8	10
11	4.0	8.3	94	122 E	28 E	18 E	89 E	35 E	17	9.7	6.9	4.5	11
12	4.3	8.5	39	85 E	27 E	18 E	84 E	34 E	17	9.4	7.8	4.6	12
13	4.2	8.8	31	56 E	26 E	18 E	76 E	33 E	17	9.2	6.2	4.4	13
14	4.5	7.8	30	52 E	26 E	19 E	72 E	32 E	21	8.9	5.6	4.3	14
15	4.4	13	29	50 E	25 E	18 E	74 E	32 E	19	8.7	5.3	4.4	15
16	4.5	11	25	48 E	25 E	16 E	86 E	32 E	17	10	5.5	4.4	16
17	4.5	9.9	26	45 E	24 E	14 E	100 E	31 E	24	11	5.6	5.2	17
18	4.3	10	37	43 E	24 E	13 E	102 E	31 E	19 *	9.4	8.6	4.6	18
19	4.3	10	28	42 E	24 E	13 E	103 E	30 E	16	8.9	9.1	5.0	19
20	4.5	11	23	41 E	23 E	12 E	102 E	30 E	14	8.5	8.0	5.2	20
21	4.5	12	416	41 E	23 E	12 E	99 E	30 E	14	8.6	6.4	5.0	21
22	4.7	12	794	42 E	23 E	11 E	91 E	30 E	14	8.1	14	4.8	22
23	4.5	13	355	46 E	22 E	11 E	85 E	30 E	12	8.1	15	4.6	23
24	4.6	16	251 E	56 E	22 E	10 E	77 E	30 E	13	7.6	7.5	5.2	24
25	4.8	23	150 E	52 E	22 E	10 E	74 E	30 E	12	7.5	8.6	4.8	25
26	4.6	18	118 E	46 E	22 E	9.6E	70 E	29 E	13	7.8	6.8	4.8	26
27	4.9	15	109 E	41 E	23 E	9.3E	67 E	28 #	12	7.8	6.0	4.8	27
28	4.8*	17	81 E	38 E	24 E	9.0E	64 E	27	12	7.4	6.0	4.8	28
29	5.2	20	66 E	39 E		8.7E	61 E	27	12	7.3	5.8	5.1	29
30	5.2	22	56 E	42 E		14 E	58 E	26	13	7.3	5.7	4.6*	30
31	5.3		49 #	39 E		21 E		26		7.3	5.4		31
MEAN	4.4	11.2	103	53.5	26.9	15.4	79.8	35.5	17.3	9.2	7.0	4.9	MEAN
MAX.	5.3	23.0	794	122 E	37.0E	22.0E	103 E	56.0E	25.0	13.0	15.0	5.4	MAX.
MIN.	3.8	5.2	14.0	38.0E	22.0E	8.7E	29.0E	26.0	12.0	7.3	5.2	4.3	MIN.
AC. FT.	271	668	6347	3293	1496	949	4746	2180	1029	564	428	291	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR OBSERVATION  
OF NO FLOW MADE THIS DAY  
# - E AND \*

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
30.8	5910	1066	12	22		3.8	1.62	10	2		22260

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
41 45 11	122 17 44	NW15 45N 4W	5910 E	10.66	12/22/64	28-NOV 51 8 APR 52-APR 55 SEP 56-DATE	28-NOV 51 8 APR 52-APR 55 SEP 56-DATE	1956	1964	0.00	LOCAL
Station located south of Ball Mountain Road, 12 miles northeast of Montague, 16 miles southwest of Macdoel. Stage-discharge relationship at times affected by ice. Drainage area is 48.2 square miles.											
8 - Irrigation season only											
Station relocated upstream 1/4 mile 5/27/65.											



TABLE B-1 (Continued)  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F25620	ETNA CREEK NEAR ETNA

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	2.0*	3.4	190	NR	NR	NR	NR	NR	NR	NR	NR	NR	1
2	1.5	5.8	128	NR	NR	NR	NR	NR	NR	NR	NR	NR	2
3	1.4	3.7	67	NP	NR	NR	NR	NR	NR	NR	NR	NR	3
4	1.5	3.1	44	NR	NR	NR	NR	NR	NR	NR	NR	NR	4
5	1.4	3.3	33	NR	NR	NR	NR	NP	NR	NR	NP	NR	5
6	1.5	3.5	27	NR	NR	NR	NR	NR	NR	NR	NR	NR	6
7	1.6	3.2	24	NR	NR	NR	NR	NR	NR	NR	NR	NR	7
8	1.9	3.8	42	NR	NR	NR	NR	NR	NR	NR	NR	NR	8
9	1.8	6.1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	9
10	1.7	6.5*	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	10
11	1.6	6.5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	11
12	1.7	8.1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	12
13	1.7	5.3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	13
14	1.9	4.5	NR	NP	NP	NR	NR	NP	NR	NP	NR	NR	14
15	2.0	4.2	NR	NR	NP	NR	NR	NR	NR	NR	NR	NR	15
16	2.1	4.4	NR	NR	NR	NP	NR	NR	NR	NR	NP	NR	16
17	2.1	4.4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	17
18	2.1	4.4	NR	NR	NR	NR	NR	NP	NR	NR	NR	NR	18
19	2.0	4.4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	19
20	1.9	4.4	NR	NP	NR	NR	NR	NR	NR	NR	NP	NR	20
21	2.0	4.6	NP	NR	NR	NR	NR	NR	NR	NR	NR	NR	21
22	2.0	4.8	NR	NR	NR	NR	NR	NR	NR	NR	NP	NR	22
23	2.1	5.4	NR	NP	NR	NR	NR	NR	NR	NR	NP	NR	23
24	1.9	29	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	24
25	2.1	47	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	25
26	2.4	18	NR	NR	NR	NR	NR	NP	NR	NP	NP	NR	26
27	2.6	13	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	27
28	3.0	26	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	28
29	4.0	38	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	29
30	3.7	90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	30
31	3.2		NR	NR		NR		NR		NR	NR		31
MEAN	2.1	12.3	NR	NR	NR	NR	NR	NR	NR	NR	NP	NR	MEAN
MAX.	4.0	90.0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	MAX.
MIN.	1.4	3.1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	MIN.
AC.FT.	128	732	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	AC.FT.

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR OBSERVATION  
OF NO FLOW MADE THIS DAY  
# - E AND \*

MEAN DISCHARGE	DISCHARGE	MAXIMUM GAGE HT.	MO.	DAY	TIME	MINIMUM DISCHARGE	GAGE HT.	MO.	DAY	TIME	TOTAL ACRE FEET
NR	NR					NR					NR

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
41 25 53	122 54 57	NE6 41N 9W	4040 E	10.87	2/8/60	SEP 50-JUNE 55 JUN 56-DATE	SEP 50-JUN 55 JUN 56-DATE	1957	1965	0.00	LOCAL

Station located south of Sawyers Bar-Etna Highway, 2.1 miles southwest of Etna. Tributary to Scott River. Stage-discharge relationship at times affected by ice. Flow influenced by upstream diversion dam of Town of Etna. Drainage area is 20.1 square miles.

Station destroyed Dec. 1964.



TABLE B-1 (Continued)  
**DAILY MEAN DISCHARGE**  
 (IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F25420	MOFFETT CREEK NEAR FORT JONES

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.3*	0.7	1.7	78	153 E	43	30	38	12	5.9	1.6	5.7	1
2	0.3	0.9	2.2	74	136	40	29	38	11	6.3	1.4	8.1	2
3	0.3	0.8	1.7	70	122	40 *	27	38	9.7	6.0	1.5	5.7	3
4	0.3	0.9	1.5	64	110 *	38	26	36	8.8	6.0	1.5	4.6	4
5	0.3	0.8	1.4	100	103	36	29	35	8.6	5.6	1.3	4.1	5
6	0.3	0.8	1.3	131	95	35	31	33	9.0	4.4	1.1*	3.9	6
7	0.3	0.8	1.3	109 *	87	34	30	31	13	4.2	1.1	3.5	7
8	0.4	0.9	1.4	96	83	33	29	30	10	4.0	1.7	2.8	8
9	0.5	1.4	1.4	88	76	32	29	29	9.5	4.0*	1.6	2.6	9
10	0.6	1.6	1.6	87	70	31	30	27	8.6	4.0	1.1	2.2	10
11	0.5	1.6	1.8	180 E	67	31	30	24	7.9	3.7	1.2	2.2	11
12	0.4	1.7	1.7	192 E	63	31	29	23	7.0	3.5	1.3	2.1	12
13	0.5	1.5	1.7	173 E	62	30	29	24	7.4	3.3	1.1	2.0	13
14	0.4	1.4	1.7	158 E	59	29	30	24	9.3*	3.6	1.0	1.9	14
15	0.3	1.5	1.8	145	56	29	32	22	11	3.6	1.0	1.7*	15
16	0.5	1.5	1.8	145	53	28	39	20	11	4.2	0.9	1.6	16
17	0.4	1.4	1.7	141	51	28	40	20	10	3.7	1.2	1.8	17
18	0.4	1.5	1.7	139	51	27	46	20	7.9	3.6	1.9	1.7	18
19	0.4	1.5	2.0	150 E	50	26	57	19	7.4	3.7	2.1	1.6	19
20	0.4	1.5	2.3	159 E	48	26	65 *	20 *	6.7	3.2	2.3	1.6	20
21	0.5	1.4	31	153 E	47	25	65	22	6.3	3.0	2.9	1.4	21
22	0.5	1.2	455 E	141	47	25	62	22	6.1	2.9	3.6	1.4	22
23	0.4	1.1*	487 E	206 E	45	25	58	20	5.7	2.8	5.2	1.4	23
24	0.5	1.0	312 E	276 E	43	25	55	18	5.5	2.5	5.5	1.3	24
25	0.5	1.0	238 E	217 E	43	25	52	16	6.3	2.6	4.5	1.3	25
26	0.4	1.0	225 E	176 E	42	24	51	15	6.8	2.5	4.2	1.2	26
27	0.4	0.9	218 E	151 E	52	23	48	14	6.8	2.4	4.0	1.4	27
28	0.5	1.0	164 E	136	46	23	45	13	6.3	2.3	3.6	1.4	28
29	0.6	1.0	126	135		23	42	13	5.3	2.2	3.4	1.1	29
30	0.6	1.5	107	159 E		23	39	13	5.3	2.1	2.8	1.1	30
31	0.5		86	167 E		23		12		2.0	2.5		31
MEAN	0.4	1.2	80.2	142	70.0	29.4	40.1	23.5	8.2	3.7	2.3	2.5	MEAN
MAX.	0.6	1.7	487 E	276 E	153 E	43.0	65.0	38.0	13.0	6.3	5.5	8.1	MAX.
MIN.	0.3	0.7	1.3	64.0	42.0	23.0	26.0	12.0	5.3	2.0	0.9	1.1	MIN.
AC. FT.	26	71	4928	8719	3888	1807	2288	1446	488	226	139	148	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED  
 NR - NO RECORD  
 \* - DISCHARGE MEASUREMENT OR OBSERVATION  
 OF NO FLOW MADE THIS DAY  
 # - E AND \*

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
33.5	680	5.59	12	23		0.3	2.22	10	1		24270

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.O.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE NT.	DATE			FROM	TO		
41 38 02	122 44 50	NE27 44N 8W	680	5.59	12/23/64	OCT 52-OCT 54 JUN 57-DATE	OCT 52-OCT 54 JUN 57-DATE	1957		0.00	LOCAL

Station located 180 feet above Old Fort Jones-Yreka Highway bridge, 5.1 miles northeast of Fort Jones. Tributary to Scott River.  
 Stage-discharge relationship at times affected by ice, upstream diversion with approximate flow of one C.F.S. May thru October.  
 Drainage area is 69.8 square miles.

TABLE B-1 (Continued)  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F41540	WEAVER CREEK NEAR DOUGLAS CITY

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.4	5.9	194	132	169	52	38	79	35	11	3.5	2.4	1
2	0.5	10	159	122	142 E	52	38	73	31 *	9.9	2.7	2.2	2
3	0.4	7.1	81	116	137 E	50	36	68	29	9.1	2.7	2.0	3
4	0.4	5.8	45	98	137 E	49	37	63	29	8.7	2.4	1.9	4
5	0.5	9.2	29	748 E	134 #	48	38	59	29	8.3	2.3	1.9	5
6	0.6	5.1	21	1010 E	123	48	37	57	27	8.0	2.2	1.6	6
7	0.7	4.9	17	681 E	112	46	38	53	26	6.6	2.1	1.9	7
8	0.7	7.4	28	414 E	106	45	44	52	24	6.2	1.8	1.8	8
9	0.8	16	53	310	98	44	45	51	23	6.0	1.7	1.9	9
10	0.6	33	169	378 E	92	42	44	51	21	6.1	1.9	1.7	10
11	0.7	43	193	707 E	87	42	42	50	20	6.0	2.9	1.7	11
12	0.7	48	54	539 E	83	42	41	52	20	6.0	4.5	1.5	12
13	1.0*	27	27	378	80	41	43	52	20	5.4	3.3	1.6	13
14	0.9	16	18	311	76	39	43	51	23	5.6	2.5	1.5	14
15	0.8	12	16	336	72	38	63	50	22	5.4*	2.3	1.4	15
16	1.2	10	9.8	377	70	37	79	52	20	4.7	2.0*	1.3	16
17	1.3	9.9	6.9	369	67 *	37	69	52	19	4.2	2.0	1.4*	17
18	1.5	9.3	5.6	411 E	66	36	274 E	49	18	4.2	6.6	1.5	18
19	1.7	8.6*	31	498 E	64	36	351 E	47	16	4.2	5.1	1.6	19
20	1.9	8.2	94	537 E	63	37	218	46	15	4.3	4.0	1.7	20
21	1.9	9.0	1620 E	488 E	61	36	186	50	15	4.5	3.7	1.3	21
22	1.8	11	2570 E	377	62	35	140 *	43	14	4.1	3.6	1.4	22
23	1.8	10	1620 E	914 E	58	35 *	118	40	13	3.9	3.6	1.3	23
24	2.0	38	1470 E	588 E	55	34	106	40	13	3.4	4.1	1.2	24
25	2.3	98	1340 E	354	54	34	99	38	13	3.3	4.6	1.3	25
26	2.7	41	834 E	269	56	39	98	37	13	3.4	4.1	1.5	26
27	3.8	36	922 E	226	72	40	96	37	13	3.4	3.9	1.4	27
28	5.6	218	767 E	197	56	36	99	38	12	3.5	3.2	1.7	28
29	8.5	116	410 E	184	36	36	94	38	10	3.3	2.8	1.9	29
30	6.1	135	249	184	40	40	85	37	11	3.2	2.5	1.8	30
31	4.3		175	181	38			37		3.4	2.6		31
MEAN	1.9	33.5	425	401	87.6	40.8	91.3	49.8	19.8	5.5	3.1	1.6	MEAN
MAX.	8.5	218	2570 E	1010 E	169	52.0	351 E	79.0	35.0	11.0	6.6	2.4	MAX.
MIN.	0.4	4.9	5.6	98.0	54.0	34.0	36.0	37.0	10.0	3.2	1.7	1.2	MIN.
AC. FT.	115	1992	26160	24660	4863	2507	5433	3062	1178	336	193	98	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR OBSERVATION  
OF NO FLOW MADE THIS DAY  
# - E AND \*

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	DISCHARGE	GAGE HT.	MO.	DAY	ACRE FEET
97.5	3980	12.72	12	22	0.4	5.60	10	1	70600

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO	
40 40 13	122 56 33	SE36 33N 10W	3980 E	12.72	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00 LOCAL

Station located 2.0 mile below State Highway 299 bridge, 1.2 miles north of Douglas City, 4.2 miles south of Weaverville. Tributary to Trinity River. Drainage area is 48.4 square miles.

Revisions:

Maximum Discharge:	Water Year	Gage Height	Discharge in CFS
	1959	9.45	1750
	1960	10.37	2300
	1961	9.68	1900
	1962	9.07	1550
	1963	11.40	2920
	1964	11.32	2860

Daily Mean:

Date	Gage Height	Discharge in CFS
1/31/61	8.15	992
2/13/62	7.80	760
1/31/63	8.67	1300
1/20/64	8.92	1060

TABLE B-1 (Continued)

## DAILY MEAN DISCHARGE

(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F41510	BROWNS CREEK NEAR DOUGLAS CITY

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	3.0	34	181	269	376	86	54	131	48	22	12	8.9	1
2	3.0	60	180	258	329	83	58	124	46 *	21	12	9.0*	2
3	3.3	30	139	231	288	81	56	119	44	20	12	9.3	3
4	3.7	19	106	197	255	78	56	112	41	20	11	9.1	4
5	2.9	16	88	518	244	80	56	107	41	19	11	8.4	5
6	3.6	14	73	704	216	81	58	103	41	19	9.5	8.0	6
7	3.6	13	62	595	188	79	56	98	40	18	8.8	7.8	7
8	3.3	16	57	448	175	76	73	93	39	18	9.4	8.4	8
9	3.8	35	54	405	160	74	77	89	38	17	9.4	8.3	9
10	4.0	81	64	376	148	73	77	87	36	17	8.7	7.3	10
11	4.4	68	88	423	137	73	75	83	34	17	11	7.3	11
12	4.0	101	78	421	131	71	83	81	32	16	16	7.2*	12
13	3.6*	78	70	405	126	68	105	79	34	16	13	7.3	13
14	3.4	53	63	385	123	67	208	76	35	15	11	7.9	14
15	4.1	39	61	408	118	65	543	73	35	15	10	7.9	15
16	4.1	32	54	439	116	63	711	72	33	14	11	7.4	16
17	4.6	27	48	449	111 *	63	468	69	33	14	11	7.2	17
18	4.5	23	45	484	108	63	612	67	33	13	16	7.6	18
19	4.8	21 *	67	545	105	64	733	65	31	12	16	7.9	19
20	4.6	20	131	548	102	58	605	65	31	12	13	7.6	20
21	4.6	22	1180	508	101	50	495	69	28	12	12	7.7	21
22	4.6	27	2840	456	99	48	397 *	65	27	13	13	7.6	22
23	4.9	25	2010	741	95	50 *	343	63	27	12	13	6.5	23
24	5.1	37	1030	966	92	52	285	60	26	12	12	6.8	24
25	5.5	79	759	717	88	50	243	58	25	12	13	7.7	25
26	5.9	77	866	556	86	52	212	55	28	11	12	8.0	26
27	6.3	65	841	466	111	57	189	54	25	11	12	8.2	27
28	14	104	640 *	422	91	51	175	51	24	11	11	8.8	28
29	34	119	500	419		49	156	50	23	11	8.5	8.9	29
30	22	129	409	448		50	141	50	23	11	9.1	8.2	30
31	14		325	429		51		49		11	9.5		31
MEAN	6.4	48.8	423	472	154	64.7	247	78.0	33.4	14.9	11.6	7.9	MEAN
MAX.	34.0	129	2840	966	376	86.0	733	131	48.0	22.0	18.0	9.3	MAX.
MIN.	2.9	13.0	45.0	197	86.0	48.0	54.0	49.0	23.0	11.0	8.5	6.5	MIN.
AC. FT.	391	2904	26000	29030	8567	3979	14680	4794	1985	916	712	472	AC. FT.

## WATER YEAR SUMMARY

E - ESTIMATED  
 NR - NO RECORD  
 \* - DISCHARGE MEASUREMENT OR OBSERVATION  
 OF NO FLOW MADE THIS DAY  
 # - E AND \*

MEAN
DISCHARGE
130

MAXIMUM				
DISCHARGE	GAGE HT.	MO.	DAY	TIME
3790	16.29	12	22	0950

MINIMUM				
DISCHARGE	GAGE HT.	MO.	DAY	TIME
2.4	7.78	10	5	0820

TOTAL
ACRE FEET
94430

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
40 38 35	122 58 46	SE10 32N 10W	3950 E	16.60	2/18/58	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL
Station located at private bridge, 2.1 miles west of Douglas City. Tributary to Trinity River. Stage-discharge relationship at times affected by ice. Drainage area is 71.4 square miles.											

TABLE B-1 (Continued)  
**DAILY MEAN DISCHARGE**  
 (IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F42100	NORTH FORK TRINITY RIVER AT HELENA

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	18	54	1520	700 E	773	398	268	743	326	135	57	34	1
2	16	153	1130	640 E	688	380	244	663	295 *	153	58	34	2
3	18	94	667	580 E	623	361	256	555	334	155	56	32	3
4	17	67	402	570 E	587	358	253	475	374	158	53	32	4
5	16	56	319	630 E	609	354	257	425	376	145	50	32	5
6	16	50	296	700 E	598	352	253	384 *	308	198	49	31	6
7	17	45	291 *	600 E	550	348	243	368	308	145	49	30	7
8	17	54	376	530 E	508	345	232	352	291	144	48	30	8
9	17	143 *	636	490 E	483	343	219	357	262	133	48	30	9
10	17	178	2400	430 E	465	345	226	369	288	115	45	29	10
11	17	181	2010	530 E	451	352	218	393	303	105	47	28 *	11
12	16	267	856	520 E	445	353 *	215	461	280	101	60	28	12
13	16	156	515	500 E	422	341	223 *	491	228	98	52	28	13
14	17	111	399	520 E	407	334	234	476	224	97	46	27	14
15	19	94	382	580 E	420	328	328	457	198	98 *	43	27	15
16	19	89	329	660 E	436	328	488	480	177	100	41 *	27	16
17	19	87	290	720 E	432 *	329	429	498	171	101	39	28 *	17
18	20	84	261	770 E	450	317	1140	419	181	99	47	27	18
19	20	83 *	273	800 E	466	307	2940	409	197	90	48	27	19
20	19	89	519	780 E	485	302	2110	394	217	81	43	27	20
21	19	95	7210	700 E	480	301	1650	358	230	77	42	27	21
22	19	110	19000 E	551	477	309	1280 *	313	237	75	41	26	22
23	19	120	10000 E	1290	457	310 *	1110	291	233	71	40	26 *	23
24	18	372	6000 E	2000	436	308	1050	274	218	67	40	26	24
25	19	375	3500 E	1120	405	299	1020	273	187	66	47	25	25
26	20 *	110	3000 E	687	381	307	1060	296	155	66	44	25	26
27	22	76	2000 E	501	495	289	1130	339	141	65	42	25	27
28	47	341	1550 E	435	427	278	1140	390	139	63	39	25	28
29	158	453	1050 E	481		272	993	425	137	60	38	25	29
30	83	622	890 E	679		272	864	402	145	56	35	25 *	30
31	53		780 E	795		271		375		55	35		31
MEAN	26.8	160	2221	693	495	326	736	416	239	100	45.9	28.0	MEAN
MAX.	158	622	19000 E	2000	773	398	2940	743	376	158	60.0	34.0	MAX.
MIN.	16.0	45.0	261	430 E	381	271	215	273	137	55.0	35.0	25.0	MIN.
AC. FT.	1646	9539	136600	42620	27480	20020	43820	25600	14200	6173	2820	1668	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED  
 NR - NO RECORD  
 \* - DISCHARGE MEASUREMENT OR OBSERVATION  
 OF NO FLOW MADE THIS DAY  
 # - E AND \*

MEAN		MAXIMUM					MINIMUM					TOTAL	
DISCHARGE		DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET	
458		35800	27.93	12	22		16	6.89	10	5		332100	

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
40 46 56	123 07 39	SW21 34N 11W	35800	27.93	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 1.0 mile above mouth, 0.6 mile north of Helena. Stage-discharge relationship at times affected by ice. Drainage area is 151 square miles.



TABLE B-1 (Continued)  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1965	F44500	BIG CREEK NEAR HAYFORK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	0.2	6.6	109	169	191	50 *	39 E	39	14	3.0	0.2E	0.1E	1
2	0.3	14	101	162	173	60	38 E	38	13 *	1.9	0.2E	0.1E	2
3	0.4	7.9	62	155	162	59	38 E	34	12	2.4	0.2E	0.1E	3
4	0.2	7.2	42	145	153	58	36 E	33	12	1.8	0.2E	0.1E	4
5	0.3	6.6	32	221	160 *	59	37 E	32	12	1.6	0.2E	0.8E	5
6	0.3	6.6	27	303	151	56	37 E	40 *	12	3.5	0.2E	0.6E	6
7	0.3	5.6	24	218	138	56	36 E	38	12	4.4	0.2E	1.1E	7
8	0.4	8.2	24	175	128	54	36 E	37	12	4.4	0.2E	0.6E	8
9	0.4	12	28	166	120	55	36 E	35	12	3.9	0.2E	0.1E	9
10	0.4	14	40	171	112	53	35 E	32	9.5	4.4	0.2E	0.5E	10
11	0.2	13	61	216	90	53	35 E	28	9.1	4.4	0.3E	0.1E	11
12	0.3	15	44	214	81	52	34 E	24	9.1	3.9	0.7E	1.2E	12
13	0.3	12	35	191	65	50	34	21	8.2	3.7	0.3E	0.1E	13
14	0.3	11	31	184	61	50	35	20	8.6	1.9	0.6E	0.7E	14
15	0.5	9.1	29	212	58	48	72	18	8.6	2.0*	0.2E	0.4E	15
16	0.3	8.6	26	245	54	46	101	18	7.9	0.5E	0.3E	0.6E	16
17	0.6	9.5	24	251	53	46	78	19	5.9	0.2E	0.1E	0.3E	17
18	0.4	9.1	23	282	52	44	131	18	6.9	0.2E	1.8E	1.1E	18
19	0.5	9.1*	30	330	52	44	184	19	4.9	0.2E	1.8E	3.0E	19
20	0.0	8.6	50	322	52	44 E	138	17	3.0	0.2E	1.5E	3.9E	20
21	0.0	9.5	942 E	287	52	43 E	110	17	2.7	0.2E	1.6E	1.5E	21
22	0.0	9.9	1130 E	243	50	43 E	88	17	3.0	0.2E	1.2E	0.2E	22
23	0.0	9.9	898 E	369 E	46	42 E	75	16	2.4	0.2E	1.4E	0.3E	23
24	0.1	15	636 E	451 E	44	42 E	66	15	2.0	0.2E	0.9E	0.3E	24
25	0.1	32	537 E	303	42	42 E	59	15	3.2	0.4E	0.6E	0.3E	25
26	0.4	24	543 E	227	40	41 E	55	14	4.7	0.2E	0.9E	0.3E	26
27	0.4	20	482 E	193	48	41 E	50	14	1.9	0.2E	0.4E	0.4E	27
28	2.2	48	368	175	41	40 E	46	14	2.0	0.2E	0.1E	0.6E	28
29	5.6	50	278	175		40 E	44	15	1.9	0.2E	0.4E	0.5E	29
30	4.9	56	223	204		40 E	40	13	2.7	0.2E	0.4E	0.4E	30
31	3.9		193	210		39 E		14		0.2E	0.1E		31
MEAN	0.8	15.6	215	231	88.2	48.1	61.5	23.4	7.3	1.6	0.6	0.6	MEAN
MAX.	5.6	56.0	1130 E	451 E	191	60.0	184	40.0	14.0	4.4	1.8E	3.9E	MAX.
MIN.	0.0	9.6	23.0	145	40.0	39.0E	34.0E	13.0	1.9	0.2E	0.1E	0.1E	MIN.
AC. FT.	48	928	13230	14220	4897	2955	3660	1436	435	101	35	38	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR OBSERVATION  
OF NO FLOW MADE THIS DAY  
# - E AND \*

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
57.8	1610	11.75	12	22	0700	0.00	5.41	10	20		41,980

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B. & M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
40 33 11	123 08 35	SE7 31N 11W	1610 E	11.75	12/22/64	FEB 57-DATE	FEB 57-DATE	1957		0.00	LOCAL
Station located 30 feet above Hayfork-Douglas City Highway bridge, 2 miles east of Hayfork. Tributary to South Fork Trinity River via Hayfork Creek. Flow influenced by upstream diversion dam of community of Hayfork. Drainage area is 27.1 square miles.											

TABLE B-2

## STREAMFLOW MEASUREMENTS AT MISCELLANEOUS SITES

Stream	Tributary	Location	Measurements	
			Date	Discharge (in cfs)
Eel River, East Branch South Fork, near Benbow Resort	South Fork Eel River	SW $\frac{1}{4}$ , SE $\frac{1}{4}$ , Sec. 32, T4S, R4E, HB&M	7-16-65	10.6
			7-24-65	9.3
			7-26-65	8.7 E
			8- 4-65	5.8
			8-10-65	6.7 E
			8-11-65	7.2 E
			8-17-65	6.0
			9- 1-65	6.3
			9-14-65	5.1
Eel River, South Fork, at French's Resort	Eel River	SE $\frac{1}{4}$ , NW $\frac{1}{4}$ , Sec. 24, T5S, R3E, HB&M	8-18-65	52.8 *
Hollow Tree Creek near Leggett	South Fork Eel River	SW $\frac{1}{4}$ , NE $\frac{1}{4}$ , Sec. 15, T23N, R17W, MDB&M	8-18-65	3.2
			8-27-65	3.0
			9-28-65	1.9
Indian Creek near Moody	South Fork Eel River	NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , Sec. 4, T24N, R18W, MDB&M	9- 1-65	2.3
			9-17-65	1.7
			9-30-65	1.6
Legget Creek near Redway Drainage area =3.8 sq. mi.	South Fork Eel River	NE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Sec. 34 T3S, R3E, HB&M	8-20-65	0.5
Redwood Creek near Redway Drainage area = 25.5 sq. mi.	South Fork Eel River	SW $\frac{1}{4}$ , SW $\frac{1}{4}$ , Sec. 10, T4S, R3E, HB&M	7-26-65	2.0 E
			7-28-65	1.8
			8-10-65	0.9
			8-17-65	0.9
			8-24-65	0.6
			8-31-65	0.5
			8-14-65	0.3
Salmon Creek near Miranda	South Fork Eel River	SE $\frac{1}{4}$ , SE $\frac{1}{4}$ , Sec. 5, T3S, R3E, HB&M	7-23-65	3.0
			7-28-65	2.6
			8-10-65	2.1
			8-17-65	2.2
			8-31-65	1.6
			9- 7-65	1.5
			9-14-65	1.0

E - Estimate

\* - Average of two measurements



APPENDIX C  
GROUND WATER MEASUREMENTS



## GROUND WATER MEASUREMENTS

All studies of ground water problems, and plans for the solution of these problems, should be based upon accurate records of ground water elevations obtained over a period of many years. This is true whether the problem is the determination of the safe yield of a ground water basin, the operation of a basin for cyclic storage in conjunction with surface water supplies, or the control of sea water intrusion.

The Department began the collection of ground water data in 1930, in conjunction with special investigations of water resources of specific areas, and has gradually developed a continuing program of hydrologic data collection. Through cooperative activities with the federal and local agencies, coordinated and augmented by the Department, the program of ground water level measurements has gradually been expanded to adequately cover the major ground water basins.

Within the North Coastal Area, the Department cooperated with the U. S. Geological Survey during the period July 1, 1964 through June 30, 1965 in the systematic observation of ground water levels in the nine major water basins. The field measurements were made by the U. S. Geological Survey; whereas the Department reviewed, processed, and edited the data.

Wells are selected for measurement on the basis of geographical density, length of record, frequency of measurement, conformity to water level fluctuations in the basin, and availability of a well log, mineral analyses, and production records.

The depth to water in most of the wells is normally a direct measurement made with a tape. However, in some of the deeper wells measurements are made with an air line and gage or an electric sounder.

A summary of the average seasonal change in water levels in the nine ground water basins reported in this appendix are given in Table C-1, "Average Ground Water Level Changes in North Coastal Area Basins". The ground water level measurements collected from these North Coastal Area basins during the period July 1, 1964 through June 30, 1965 are included in Table C-2, "Ground Water Levels at Wells".

### Coding Systems

Region and Basin Designations. All data presented in this appendix are located within Region 1, a geographic area defined in Section 13040 of the Water Code. The nine ground water basins measured in the program during 1964-65 are shown on Figure C-1.

A decimal system of the form 0-00.0 is used for basin numbering. The number to the left of the dash refers to the geographic region and the first two digits of the number on the right of the dash refer to the hydrographic unit, generally designated as a basin, valley, or area. These are followed by a decimal which shows the sub-basin, area, or sub-area within the basin, valley, or area. Two zeros following the decimal denotes that there is no sub-basin, area, or sub-area. An example is given below:

		1-01.00
Region (North Coastal Region)	_____	
Hydrographic Unit (Smith River Plain)	_____	
Sub-area (No sub-areas exist in the North Coastal Region)	_____	

Well Numbering System. The well numbering system used in this report is based on the township, range, and section subdivision of the United States Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data is published or filed by the Department. In this report, the number of a well assigned in accordance with this system is referred to as the State Well Number.

Within the system each section is divided into 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 16N/1W-2J1H would be in Township 16 North, Range 1 West, Section 2, Humboldt Base and Meridian, and would be further designated as the first well assigned a State Well Number in Tract J. In this report, well numbers are in reference to the Humboldt Base and Meridian (H) or the Mount Diablo Base and Meridian (M).

Agency Supplying Data. The code number assigned to the U. S. Geological Survey, the only measuring agency for the wells listed in this appendix, is 5000.

Reason for Questionable Measurement. If the water level measurement is of questionable reliability, the reason is indicated by the following code preceding the measurement:

<u>Code</u>	<u>Reason</u>
1	Pump operating
2	Nearby pump operating
3	Casing leaking or wet
4	Pumped recently
5	Air or pressure gage measurement
6	Other
7	Recharge operation at or near well
8	Oil in casing
0	Caved or deepened

Reason for No Measurement. If no measurement was made at a well scheduled to be measured, the reason for not making the measurement is indicated by the following code:

<u>Code</u>	<u>Reason</u>
1	Pump operating
2	Pump house locked
3	Tape hung up
4	Cannot get tape into casing
5	Unable to locate well
6	Well has been destroyed
7	Special
8	Casing leaking or wet
9	Temporarily inaccessible
0	Measurement discontinued





TABLE C-1  
AVERAGE GROUND WATER LEVEL CHANGES  
IN NORTH COASTAL AREA BASINS  
SPRING 1964 - SPRING 1965

Ground Water Basin		:	Number	:
		:	of Wells	:
		:	Considered	:
		:	in	:
		:	Analysis	:
Name	:	Number	:	Average Ground
				Water Level Change
				in feet
Smith River Plain		1-01.00	4	No change
Butte Valley		1-03.00	5	+5
Shasta Valley		1-04.00	6	+1
Scott River Valley		1-05.00	4	+8
Mad River Valley		1-08.00	2	No change
Eel River Valley		1-10.00	3	+2
Round Valley		1-11.00	5	+1
Laytonville Valley		1-12.00	3	+1
Little Lake Valley		1-13.00	3	No change

## GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE ELEVATION IN FEET	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
NORTH COASTAL REGION 1-00.00						
SMITH RIVER PLAIN 1-01.00						
16N/O1W-02P01 H	127.0	7-15-64	18.4	108.6	5000	
		8-20-64	19.0	108.0	5000	
		9-16-64	20.6	106.4	5000	
		10-14-64	20.3	106.7	5000	
		11-18-64	17.9	109.1	5000	
		12-16-64	15.5	111.5	5000	
		1-00-65	(9)	-	5000	
		2-17-65	15.7	111.3	5000	
		3-17-65	16.9	110.1	5000	
		4-15-65	16.3	110.7	5000	
		5-19-65	17.4	109.6	5000	
		6-16-65	21.4	105.6	5000	
16N/O1W-17K01 H	48.0	7-15-64	19.9	28.1	5000	
		8-20-64	21.2	26.8	5000	
		9-16-64	21.9	26.1	5000	
		10-14-64	22.8	25.2	5000	
		11-18-64	23.8	24.2	5000	
		12-16-64	22.4	25.6	5000	
		1-00-65	(9)	-	5000	
		2-17-65	13.0	35.0	5000	
		3-17-65	15.2	32.8	5000	
		4-15-65	18.1	29.9	5000	
		5-19-65	16.0	32.0	5000	
		6-16-65	17.6	30.4	5000	
17N/O1W-02P01 H	31.0	7-15-64	22.0	9.0	5000	
		8-20-64	22.6	8.4	5000	
		9-16-64	(1)	-	5000	
		10-14-64	23.4	7.6	5000	
		11-18-64	20.0	11.0	5000	
		12-16-64	16.2	14.8	5000	
		1-00-65	(9)	-	5000	
		2-17-65	17.3	13.7	5000	
		3-17-65	18.8	12.2	5000	
		4-15-65	19.6	11.4	5000	
		5-19-65	19.5	11.5	5000	
		6-16-65	21.4	9.6	5000	
SMITH RIVER PLAIN 1-01.00						
18N/O1W-26P01 H	38.0	7-15-64	22.6	15.4	5000	
		8-20-64	23.6	14.4	5000	
		9-16-64	25.8	12.2	5000	
		10-14-64	25.5	12.5	5000	
		11-18-64	19.5	18.5	5000	
		12-16-64	14.9	23.1	5000	
		1-00-65	(9)	-	5000	
		2-17-65	18.4	19.6	5000	
		3-17-65	20.5	17.5	5000	
		4-15-65	16.7	21.3	5000	
		5-19-65	19.3	18.7	5000	
		6-16-65	20.9	17.1	5000	
BUTTE VALLEY 1-03.00						
46N/O1E-06N01 M	4242.4	7-16-64	24.3	4218.1	5000	
		8-21-64	31.0	4211.4	5000	
		9-17-64	16.0	4226.4	5000	
		10-15-64	24.3	4218.1	5000	
		11-19-64	23.0	4219.4	5000	
		12-17-64	22.4	4220.0	5000	
		1-20-65	20.8	4221.6	5000	
		2-18-65	19.4	4223.0	5000	
		3-18-65	19.0	4223.4	5000	
		4-16-65	18.7	4223.7	5000	
		5-20-65	25.8	4216.6	5000	
		6-17-65	24.4	4218.0	5000	
46N/O2W-25R02 M	4256.2	7-16-64	(1)	-	5000	
		8-21-64	(1)	-	5000	
		9-17-64	28.5	4227.7	5000	
		10-15-64	34.2	4222.0	5000	
		11-19-64	30.0	4226.2	5000	
		12-17-64	28.8	4227.4	5000	
		1-20-65	22.4	4233.8	5000	
		2-18-65	21.1	4235.1	5000	
		3-18-65	22.1	4234.1	5000	
		4-16-65	23.0	4233.2	5000	
		5-20-65	28.8	4227.4	5000	
		6-17-65	31.1	4225.1	5000	

TABLE C-2 (Continued)  
**GROUND WATER LEVELS AT WELLS**

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
<b>BUTTE VALLEY 1-03.00</b>					
47N/01W-14B01 M	4233.7	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-20-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	12.4 12.6 12.6 12.8 12.8 12.8 8.5 7.5 9.7 10.2 10.3 10.5	4221.3 4221.1 4221.1 4220.9 4220.9 4220.9 4225.2 4226.2 4224.0 4223.5 4223.4 4223.2	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
47N/01W-27B01 M	4233.4	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-20-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	10.7 11.2 11.4 11.5 11.6 11.5 8.2 7.6 7.8 8.0 8.1 8.2	4222.7 4222.2 4222.0 4221.9 4221.8 4221.9 4225.2 4225.8 4225.6 4225.4 4225.3 4225.2	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
48N/01W-26N01 M	4244.2	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-20-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	18.6 23.8 20.8 20.6 20.4 19.9 9.6 7.7 9.1 9.9 11.3 12.8	4225.6 4220.4 4223.4 4223.6 4223.8 4224.3 4224.6 4236.5 4235.1 4234.3 4232.9 4231.4	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
<b>SHASTA VALLEY 1-04.00</b>					
42N/05W-20J01 M	2882.0	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-21-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	6.1 3.4 3.9 5.4 6.3 5.3 6.1 6.3 4.6 3.1 3.5	2875.9 2878.6 2878.1 2876.6 2875.7 2876.7 2876.5 2875.9 2875.7 2877.4 2878.9 2878.5	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
42N/06W-10J01 M	2835.0	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-21-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	9.0 13.3 14.6 15.2 13.5 8.2 2.6 5.0 5.4 4.6 2.7 4.2	2826.0 2821.7 2820.4 2819.8 2821.5 2826.8 2832.4 2830.0 2829.6 2830.4 2832.3 2830.8	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
43N/06W-22A01 M	2665.0	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-21-65 2-18-65 3-18-65 4-16-65 5-20-65 6-17-65	(1) (1) 27.0 18.0 (1) 8.4 4.2 (1) 3.6 (1) 3.9 (1)	- - 2638.0 2647.0 - 2656.6 2660.8 - 2661.4 - 2661.1 -	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000

TABLE C-2 (Continued)

## GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SHASTA VALLEY 1-04.00					
44W/05W-34H01 M	2637.0	7-16-64	(1)	-	5000
		8-21-64	(1)	-	5000
		9-17-64	24.8	2612.2	5000
		10-15-64	25.3	2611.7	5000
		11-19-64	26.6	2610.4	5000
		12-17-64	27.7	2609.3	5000
		1-21-65	27.0	2610.0	5000
		2-18-65	27.5	2609.5	5000
		3-18-65	28.4	2608.6	5000
		4-16-65	27.6	2609.4	5000
		5-20-65	(1)	-	5000
		6-17-65	26.0	2611.0	5000
45W/05W-29B01 M 2635.0					
		7-17-64	19.4	2615.6	5000
		8-21-64	18.8	2616.2	5000
		9-17-64	19.0	2616.0	5000
		10-15-64	19.9	2615.1	5000
		11-19-64	20.0	2615.0	5000
		12-17-64	20.7	2614.3	5000
		1-21-65	19.0	2616.0	5000
		2-18-65	19.2	2615.8	5000
		3-18-65	20.0	2615.0	5000
		4-16-65	20.1	2614.9	5000
		5-20-65	20.0	2615.0	5000
		6-17-65	17.9	2617.1	5000
45W/06W-19B01 M 2538.0					
		7-16-64	19.4	2518.6	5000
		8-21-64	18.9	2519.1	5000
		9-17-64	27.8	2510.2	5000
		10-15-64	20.8	2517.2	5000
		11-19-64	19.1	2518.9	5000
		12-17-64	19.3	2518.7	5000
		1-21-65	17.2	2520.8	5000
		2-18-65	16.9	2521.1	5000
		3-18-65	17.1	2520.9	5000
		4-16-65	18.1	2519.9	5000
		5-20-65	17.8	2520.2	5000
		6-17-65	18.3	2519.7	5000
SCOTT RIVER VALLEY 1-05.00					
42N/09W-08C3 M	2836.0	7-16-64	35.7	2800.3	5000
		8-21-64	43.6	2792.4	5000
		9-17-64	47.8	2788.2	5000
		10-15-64	52.4	2783.6	5000
		11-19-64	(1)	-	5000
		12-16-64	58.7	2777.3	5000
		1-21-65	19.1	2816.9	5000
		2-18-65	18.3	2817.7	5000
		3-18-65	26.0	2810.0	5000
		4-16-65	32.3	2803.7	5000
		5-20-65	37.0	2799.0	5000
		6-16-65	35.8	2800.2	5000
42N/09W-27N01 M 2930.0					
		7-16-64	3.2	2926.8	5000
		8-21-64	7.2	2922.8	5000
		9-17-64	8.6	2921.4	5000
		10-15-64	9.4	2920.6	5000
		11-19-64	6.9	2923.1	5000
		12-17-64	1.6	2928.4	5000
		1-21-65	1.8	2928.2	5000
		2-18-65	3.3	2926.7	5000
		3-18-65	4.2	2925.8	5000
		4-16-65	4.5	2925.5	5000
		5-20-65	3.1	2926.9	5000
		6-16-65	1.9	2928.1	5000
43W/09W-24P01 M 2735.0					
		7-16-64	5.2	2729.8	5000
		8-21-64	(1)	-	5000
		9-17-64	(1)	-	5000
		10-15-64	13.9	2721.1	5000
		11-19-64	12.8	2722.2	5000
		12-17-64	12.3	2722.7	5000
		1-21-65	6.1	2728.9	5000
		2-18-65	4.4	2730.6	5000
		3-18-65	4.8	2730.2	5000
		4-16-65	5.4	2729.6	5000
		5-20-65	(1)	-	5000
		6-16-65	3.1	2731.9	5000



TABLE C-2 (Continued)  
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SCOTT RIVER VALLEY 1-05.00					
44N/09W-28P01 M	2711.0	7-16-64 8-21-64 9-17-64 10-15-64 11-19-64 12-17-64 1-21-65 2-18-65 3-18-65 4-16-65 5-20-65 6-16-65	8.0 9.3 14.2 22.8 26.2 26.1 8.2 3.9 7.9 9.6 5.8 7.0	2703.0 2701.7 2696.8 2688.2 2684.8 2684.9 2702.8 2707.1 2703.1 2701.4 2705.2 2704.0	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
MAD RIVER VALLEY 1-08.00					
06N/01E-06H01 H	151.0	7-15-64 8-20-64 9-16-64 10-14-64 11-18-64 12-16-64 1-00-65 2-17-65 3-17-65 4-15-65 5-19-65 6-16-65	10.7 7.9 15.2 14.5 5.9 1.5 (9) 3.1 5.3 3.7 5.3 8.1	140.3 143.1 135.8 136.5 145.1 149.5 - 147.9 - 147.3 145.7 142.9	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
06N/01E-29P01 H	25.0	7-15-64 8-20-64 9-16-64 10-14-64 11-17-64 12-16-64 1-00-65 2-17-65 3-17-65 4-15-65 5-19-65 6-16-65	11.2 13.5 14.3 12.2 9.2 7.1 (9) 7.3 7.7 7.2 7.3 7.5	13.8 11.5 10.7 12.8 15.8 17.9 - 17.7 17.3 17.8 17.7 17.5	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
EEL RIVER VALLEY 1-10.00					
03N/01W-18D01 H	24.0	7-15-64 8-20-64 9-16-64 10-14-64 11-18-64 12-16-64 1-00-65 2-17-65 3-17-65 4-15-65 5-19-65 6-16-65	2.2 2.6 3.0 3.2 3.5 3.0 (9) 1.5 1.7 1.3 7.8 2.0	21.8 21.4 21.0 20.8 20.5 21.0 - 22.5 22.3 22.7 16.2 22.0	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
03N/01W-34J01 H	60.0	7-15-64 8-20-64 9-16-64 10-14-64 11-18-64 12-16-64 1-00-65 2-17-65 3-17-65 4-15-65 5-19-65 6-16-65	34.5 35.1 35.6 35.8 34.7 33.1 (9) 30.6 31.6 31.3 31.6 32.3	25.5 24.9 24.4 24.2 25.3 26.9 - 29.4 28.4 28.7 28.4 27.7	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
03N/02W-26R01 H	20.0	7-15-64 8-20-64 9-16-64 10-14-64 11-18-64 12-16-64 1-00-65 2-17-65 3-17-65 4-15-65 5-19-65 6-16-65	8.8 9.5 9.7 9.3 7.8 5.2 (9) 4.6 5.8 5.6 6.0 7.0	11.2 10.5 10.3 10.7 12.2 14.8 - 15.4 14.2 14.4 14.0 13.0	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000



TABLE C-2 (Continued)

## GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
ROUND VALLEY 1-11.00					
22W/12W-04B01 M	1351.0	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-16-64 1-00-65 2-16-65 3-17-65 4-15-65 5-18-65 6-15-65	(1) 13.8 14.3 15.8 9.6 6.3 (9) 6.3 6.6 6.4 6.7 7.5	- 1337.2 1336.7 1335.2 1341.4 1344.7 - 1344.7 1344.4 1344.6 1344.3 1343.5	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
22W/13W-12R01 M	1400.0	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-16-64 1-00-65 2-16-65 3-17-65 4-15-65 5-18-65 6-15-65	17.1 22.7 27.0 30.1 28.9 19.5 (9) 4.6 6.6 7.5 8.0 10.0	1382.9 1377.3 1373.0 1369.9 1371.1 1380.5 - 1395.4 1393.4 1392.5 1392.0 1390.0	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
23W/12W-31N01 M	1388.5	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-16-64 1-00-65 2-16-65 3-17-65 4-15-65 5-18-65 6-15-65	(1) (7) (1) 8.4 4.5 -3.2 (9) (7) -8.2 -8.7 -8.8 -5.9	- - - 1380.1 1384.0 1391.7 - - 1396.7 1397.2 1397.3 1394.4	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
ROUND VALLEY 1-11.00					
23W/13W-36Q01 M	1409.5	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-16-64 1-00-65 2-16-65 3-17-65 4-15-65 5-18-65 6-15-65	17.9 23.2 26.8 28.6 20.3 13.7 (9) 8.9 10.4 11.0 11.0 12.8	1391.6 1386.3 1382.7 1380.9 1389.2 1395.8 - 1400.6 1399.1 1398.5 1398.5 1396.7	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
23W/13W-36Q01 M	1403.0	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-16-64 1-00-65 2-16-65 3-17-65 4-15-65 5-18-65 6-15-65	10.4 14.5 18.3 20.0 15.7 7.4 - 1.1 2.9 3.7 3.6 5.6	1392.6 1388.5 1384.7 1383.0 1387.3 1395.6 - 1401.9 1400.1 1399.3 1399.4 1397.4	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
LAYTONVILLE VALLEY 1-12.00					
21N/14W-30M01 M	1688.0	7-14-64 8-19-64 9-15-64 10-14-64 11-18-64 12-16-64 1-20-65 2-17-65 3-17-65 4-15-65 5-18-65 6-15-65	18.2 17.7 17.1 17.0 13.7 6.7 5.1 5.2 6.0 5.8 10.3 11.6	1669.8 1670.3 1670.9 1671.0 1674.3 1681.3 1682.9 1682.8 1682.0 1682.2 1677.7 1676.4	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000

TABLE C-2 (Continued)

**GROUND WATER LEVELS AT WELLS**

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
LAYTONVILLE VALLEY 1-12.00					
21N/15W-12M02 M	1630.0	7-14-64 8-19-64 9-15-64 10-14-64 11-18-64 12-16-64 1-20-65 2-17-65 3-17-65 4-15-65 5-18-65 6-15-65	15.6 16.8 25.3 17.8 17.4 13.1 5.4 6.8 8.3 7.7 9.7 12.2	1614.4 1613.2 1604.7 1612.2 1612.6 1616.9 1624.6 1623.2 1621.7 1622.3 1620.3 1618.8	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
21N/15W-24A01 M	1653.0	7-14-64 8-19-64 9-15-64 10-14-64 11-18-64 12-16-64 1-20-65 2-17-65 3-17-65 4-15-65 5-18-65 6-15-65	5.1 6.8 7.9 4.9 4.4 1.3 1.8 2.5 2.8 0.2 3.3 9.4	1647.9 1646.2 1645.1 1648.1 1648.6 1651.7 1651.2 1650.5 1650.2 1652.8 1649.7 1643.6	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000
LITTLE LAKE VALLEY 1-13.00					
18N/13W-08I01 M	1340.0	7-14-64 8-19-64 9-15-64 10-13-64 11-17-64 12-15-64 1-19-65 2-16-65 3-17-65 4-14-65 5-18-65 6-15-65	(1) 5.4 (1) 7.4 (1) 4.6 -0.8 0.1 0.8 1.6 0.4 2.9 4.0	- - 1332.6 - 1335.4 1340.8 1339.9 1339.2 1338.4 1339.6 1337.1 1336.0	5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000

APPENDIX D  
SURFACE WATER QUALITY



## SURFACE WATER QUALITY

The Surface Water Quality Data Program provides basic information on the quality characteristics of the State's surface waters. Data presented in this appendix are measured values of the chemical and physical characteristics of surface waters in the North Coastal Area, as shown on the "Area Orientation Map". The Surface Water Quality Data Program is performed in cooperation with local and other state and federal agencies.

All data presented in this volume are within the North Coastal Water Quality Control Region (No. 1) excluding the Russian River drainage basin and the area along the coast south of the Mattole River drainage. Figure B-1 in Appendix B shows the location of surface water sampling stations for the 1964-65 water year. Surface water quality samples are normally collected at or near existing stream gaging stations.

The Surface Water Quality Data Program consists of selecting locations to be sampled, collection of samples by Department personnel or cooperators, laboratory analysis by an assigned agency, examination of the data to note trends or significant changes, and publication of the data and findings.

Except where noted, tabulated values for temperature and dissolved oxygen are those measured in the field at the time of sampling. Comments on local conditions are noted in the field books but are not included in the tabulation.

Tabulated values for dissolved minerals are the analytical quantity reported in parts per million (ppm) and a computed value for equivalents per million (epm). Electrical conductivity is reported as micromhos at 25°C and temperature in degrees Fahrenheit. Laboratory analyses of surface water samples were performed by the U. S. Geological Survey (USGS) in accordance

with "Methods for Collection and Analysis of Water Samples", Water-Supply Paper 1454. Analysis of surface water samples for trace elements was performed by spectrograph by the U. S. Geological Survey and is reported in parts per billion.

Bacteriologic determinations were made by the California Department of Public Health in Berkeley, and are expressed as the most probable number (MPN) of coliform bacteria per milliliter of sample. In view of the rapidity and frequency of change in the density of coliform organisms, frequent and lengthy sampling is necessary before a truly reliable evaluation can be made.



TABLE D-1  
SAMPLING STATION DATA AND INDEX  
NORTH COASTAL AREA

Station	Station Number	Location <sup>a</sup>	Period of Record <sup>b</sup>	Frequency of Sampling <sup>c</sup>	Sampled by <sup>d</sup>	Analysis on page
Bear River near Capetown	7b	01W-03W-13*	MAY 64	M	DWR	54
Black Butte River near Covelo	5h	23N-11W-28	NOV 64	M	DWR	55
Eel River near Dos Rios	5d	21N-13W-31	APR 58	M	DWR	56 & 81
Eel River near McCann	5	02S-03E-04*	APR 51	M	DWR	57
Eel River, Middle Fork at Dos Rios	5c	21N-13W-06	APR 58	M	DWR	58 & 81
Eel River, Middle Fork at Eel Ranger Station	5g	23N-11W-28	FEB 65	M	DWR	59
Eel River at Scotia	6	02N-01E-31*	APR 51	M	DWR	60 & 81
Eel River, South Fork near Miranda	7	03S-04E-30*	APR 51	M	DWR	61
Klamath River above Hamburg Reservoir Site	1c	46N-10W-14	DEC 58	M	DWR	62
Klamath River below Iron Gate Dam	1f	47N-05W-17	DEC 61	M	DWR	63 & 81
Klamath River near Klamath	3	13N-01E-24*	APR 51	M	DWR	64 & 81
Klamath River at Orleans	2c	11N-06E-31*	JAN 64	M	DWR	65 & 81
Klamath River near Seiad Valley	2b	46N-12W-03	DEC 58	M	DWR	66 & 81
Mad River near Arcata	6a	06N-01E-15*	NOV 58	M	DWR	67 & 81
Mattole River near Petrolia	7a	02S-02W-11*	JAN 59	M	DWR	68
Mill Creek near Covelo	5e	22N-12W-22	FEB 65	M	DWR	69
Outlet Creek near Longvale	5b	20N-14W-01	MAY 58	M	DWR	70 & 81
Redwood Creek at Orick	3b	10N-01E-04*	NOV 58	M	DWR	71
Salmon River at Somesbar	2a	11N-06E-02*	NOV 58	S	DWR	72
Scott River near Fort Jones	1b	44N-10W-29	DEC 58	M	DWR	73
Shasta River near Yreka	1a	46N-07W-24	DEC 58	M	DWR	74
Smith River near Crescent City	3a	16N-01E-10*	APR 51	M	DWR	75
Trinity River near Burnt Ranch	4b	05N-07E-19*	APR 58	M	DWR	76
Trinity River near Hoopa	4	08N-05E-31*	APR 51	M	DWR	77 & 81
Trinity River at Lewiston	4a	33N-08W-17	APR 51	M	DWR	78
Van Duzen River near Bridgeville	5a	01N-03W-17*	APR 58	M	DWR	79
Williams Creek near Covelo	5f	23N-12W-24	FEB 65	M	DWR	80

<sup>a</sup> Except as indicated below location is referenced to Mt. Diablo Base and Meridian  
\*Humboldt Base and Meridian

<sup>b</sup> Beginning of record

<sup>c</sup> M-Monthly, S-Semiannually

<sup>d</sup> California Department of Water Resources (DWR)

TABLE D-2  
ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

BEAR RIVER NEAR CAPETOWN (STA. 70)

Date and time sampled P.S.T.	Discharge Temp in cfs in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> ppm	Tur- bid- ity in ppm	Coliform MPN/ml	Analyzed by i			
		ppm	%Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents
10/14/64 0830	Est. 5	57	10.1	97	318	7.8 8.3	2.80 <sup>c</sup>	11. 0.45		3 0.10	14.3 2.34		7.4 0.21		0.2			15	140	18	1		USGS	
11/ 12/3 0930	Not Sampled																							
12/3 0930		50	10.8	95	141	7.4 7.7		6.5 0.28		0 0.00	45 0.74		6.1 0.17		0.1			21	53	0	400			
1/65	Not Sampled																							
2/11/65 0920	Est. 35	45	10.7	88	199	7.3 8.1	1.55 <sup>c</sup>	8.8 0.38		0 0.00	76 1.25		9.5 0.27		0.1			19	79	17	160			
3/65	Not Sampled																							
4/65	Not Sampled																							
5/11 0845	Est. 40	55	10.0	94	223	7.9 8.4	1.50	7.7 0.33	1.5 0.04	3 0.10	93 1.52		5.4 0.15		0.1	10	ABS 0.0 As 0.00 PO <sub>4</sub> 0.05	15	95	14	70			
6/8 1430	Est. 30	60	8.9	89	273	8.1 8.5	2.44 <sup>c</sup>	8.6 0.37		5 0.17	118 1.93		6.1 0.17		0.0		PO <sub>4</sub> 0.05	13	122	17	3			
7/65	Not Sampled																							
8/4 1030	Est. 20	67	9.7	105	324	8.1 8.4	2.90 <sup>c</sup>	11 0.48		2 0.07	149 2.44		7.5 0.21		0.2			14	145	20	1			
9/65	Not Sampled																							

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO.1)

BLACK BUTTE RIVER NEAR COVELO (STA. 5b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by i																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Nit- rate (NO <sub>3</sub> )	Fluo- ride (F)							Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
EEL RIVER NEAR DOS RIOS (STA. 5a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhm/cm at 25°C)	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent total solids in ppm	Hardness as CaCO <sub>3</sub> in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by							
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>				
10/15/64 1030	3.4	62	9.1	96	281	8.2	2.30 <sup>c</sup>		1.3	0.57	0.00	1.30		9.4			0.6				20	115	8	1				USGS	
11/6 0800	20	55	9.5	92	299	7.9	2.52 <sup>c</sup>		12	0.52	0.07	1.34		8.1			0.5				17	126	13	1					
12/4 0930		46	10.7	92	135	7.5	1.14 <sup>c</sup>		5.2	0.23	0.00	0.68		22			0.5				17	57	1	20					
1/65	Inaccessible					8.1						1.11		0.06															
2/1 1500		48	11.2	99	129	7.7	1.16 <sup>c</sup>		4.3	0.19	0.00	0.70		1.0	1.2		0.1		PO <sub>4</sub> 0.10		14	58	1	100					
3/11 0910	180	51	9.0	82	208	7.9	1.90 <sup>c</sup>		6.2	0.27	0.00	1.09		3.4	0.0		0.2		PO <sub>4</sub> 0.05		12	95	6	15					
4/15 1000	1600	51	9.5	88	148	7.8	1.28 <sup>c</sup>		6.2	0.27	0.00	0.75		1.8	1.8		0.1		PO <sub>4</sub> 0.15		17	64	2	200					
5/13 0815	290	67	8.7	97	188	8.0	2.4	6.1	5.9	1.0	0.00	1.01	12	2.3	1.5		0.2	14	ABS 0.0 As 0.01		116 <sup>f</sup>	85	2	20					
6/9 1435	60	75	9.3	112	244	8.4	2.20 <sup>c</sup>		9.0	0.39	0.07	1.23	0.25	3.6	1.2		0.2		PO <sub>4</sub> 0.10		15	110	6	1					
7/22 0905	15	72	8.6	101	247	8.1	2.10 <sup>c</sup>		10	0.44	0.13	1.10		5.6	1.6		0.4		PO <sub>4</sub> 0.10		17	105	8	1					
8/5 0815	10	73	8.0	95	255	7.9	2.14 <sup>c</sup>		11	0.48	0.10	1.14		6.2	3.0		0.4		PO <sub>4</sub> 0.05		18	107	9	0					
9/23 0850	5.6	64	8.6	92	277	8.0	35	6.2	11	1.5	0.00	1.24	29	8.0	0.0		0.3	41	ABS 0.0 As 0.00		165 <sup>f</sup>	116	14	1					
						8.1	1.75	0.57	0.48	0.04	0.00	2.03	0.60	0.23	0.00				PO <sub>4</sub> 0.06										

<sup>a</sup> Field pH.

<sup>b</sup> Laboratory pH.

<sup>c</sup> Sum of calcium and magnesium in ppm.

<sup>d</sup> Heavy metals reported in table of "Spectrographic Analyses of Surface Water."

<sup>e</sup> Derived from conductivity vs TDS curves.

<sup>f</sup> Determined by addition of analyzed constituents.

<sup>g</sup> Gravimetric determination.

<sup>h</sup> Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

<sup>i</sup> Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

FUEL RIVER NEAR McCANN (STA. 5)

h Annual median and range, respectively. Calculated from analyses at upstate monthly sampling stations. <sup>a</sup> Data from the United States Geological Survey, Quality of Water Branch (USGS).



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MIDDLE FORK RIVER AT DOS RIOS (STA. 5c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhmhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sol- ids	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>	
			ppm	%Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)
10/14/64 1115	9.5	64	10.3	110	394	8.2 8.2	3.14 <sup>c</sup>	1.7 0.74		0	1.26 2.07	38 1.07	0.3						19	151	54	1	USGS
11/6 0830	106	52	10.8	101	300	7.8 8.4	2.10 <sup>c</sup>	12 0.32		2	1.10 1.80	14 0.39	0.3						18	120	23	1	
12/4 1000	4010	43	11.0	91	121	7.6 8.0	1.08 <sup>c</sup>	3.5 0.15		0	0.61 1.00	0.9 0.03	0.3						12	54	4	60	
1/65	Inaccessible																						
2/2 1145	6950	44	11.9	100	154	7.9 8.2	1.44 <sup>c</sup>	3.5 0.15		0	0.80 1.31	0.9 0.03	0.0	1.0 0.02					9	7.2	6	800	
3/11 0950	est. 600	47	10.6	93	177	7.9 8.2	1.64 <sup>c</sup>	4.0 0.17		0	0.88 1.44	1.8 0.05	0.0	0.1 0.00					9	82	10	100	
4/15 1020	5240	48	9.7	86	180	8.0 7.4	1.66 <sup>c</sup>	4.7 0.20		0	0.90 1.48	1.8 0.05	0.4	1.8 0.03				PO <sub>4</sub> 0.15	12	83	9	200	
5/13 0840	1400	55	10.0	97	164	7.9 8.0	2.2 1.10	3.8 0.17	0.7 0.02	0	0.83 1.36	13 0.27	0.1	0.9 0.01	10		ABS 0.0 As 0.00 PO <sub>4</sub> 0.10	102 <sup>f</sup>	10	75	7	140	
6/9 1510	406	72	8.7	102	222	8.2 8.4	2.08 <sup>c</sup>	5.1 0.22		2	1.07 1.75	2.6 0.07	0.1	1.0 0.02			PO <sub>4</sub> 0.10	10	104	13	11		
7/22 0935	68	72	8.7	102	353	8.2 8.5	3.38 <sup>c</sup>	8.6 0.37		7	0.23 1.53 2.51	8.2 0.23	0.4	1.5 0.02			PO <sub>4</sub> 0.10	10	169	32	1		
8/5 0915	45	73	8.7	101	368	8.1 8.6	3.48 <sup>c</sup>	9.7 0.42		13	0.43 2.31	10 0.28	0.3	0.9 0.01			PO <sub>4</sub> 0.05	11	174	37	1		
9/23 0920	25	64	9.6	103	416	8.1 8.4	2.50 <sup>c</sup>	12 0.52	1.8 0.05	2	1.64 2.69	59 1.23	0.2	0.00 0.00	12		ABS 0.0 As 0.00 PO <sub>4</sub> 0.09	254 <sup>f</sup>	12	194	56	1	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in egm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);



TABLE D-2 (Continued)  
**ANALYSES OF SURFACE WATER**  
 NORTH COASTAL REGION (NO. 1)  
 MIDDLE FORK EEL RIVER AT EEL RIVER RANGER STATION (STA. 56)

Date and time sampled P.S.T.	Discharge Temp in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhmhos at 25°C)	pH a b	Mineral constituents in										parts per million					Total dis- solved solids in ppm	Per- cent sodium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bidity in ppm	Coliform MPN/ml	Analyzed by <sup>i</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Nit- rate (NO <sub>3</sub> )	Fluo- ride (F)	Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)

FEEL RIVER AT SCOTIA (STA. 6)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micro-mhos at 25 °C)	pH	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent susp- ended solids in ppm	Hard- ness as CaCO <sub>3</sub> in ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>						
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Nit- rate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>			
10/14/64 1425	68	71	13.2	149	306	8.3 8.4		10 0.44		10 0.33	148 2.43		7.8 0.22			0.1		14	137	0	1	Median 425	USGS					
11/4 1400	815	58	10.9	106	301	8.2 8.2		9.6 0.42		0 0.00	144 2.36		8.6 0.24			0.1		14	129	11	3	Maximum 7000						
12/2 1335	30,600	53	9.8	90	122	7.3 7.8		6.5 0.28		0 0.00	49 0.80		4.8 0.14			0.1		24	45	5	200	Minimum 0.62						
1/65	Inaccessible																											
2/9 1435	11,800	49	11.3	98	181	7.7 8.2		5.5 0.24		0 0.00	94 1.54		2.6 0.07			0.0		13	81	4	300							
3/10 1245	2,800	53	8.2	75	216	7.7 8.1		6.0 0.26		0 0.00	115 1.88		3.6 0.10			0.1		12	99	5	70							
4/14 1230	4,350	57	10.1	97	192	7.9 8.2		7.2 0.31		0 0.00	96 1.57		3.1 0.09			0.1		15	85	6	120							
5/12 1145	6,320	66	8.8	94	209	8.0 8.5	6.6 0.54	5.6 0.24	1.3 0.03	3 0.10	108 1.77	13.2 0.27	3.0 0.08	1.3 0.02		0.1	11.1 ABS 0.0 As 0.00 PO <sub>4</sub> 0.10	11	97	4	75							
6/8 1700	1,050	64	8.3	87	260	8.1 8.4		7.4 0.32		2 0.07	139 2.28		3.3 0.09			0.1		12	123	6	11							
7/20 1600	245	72	7.9	90	328	7.9 8.6		9.1 0.40		7 0.23	172 2.52		5.6 0.16			0.1		12	153	0	3							
8/3 1630	215	73	8.7	100	330	7.9 8.5		9.8 0.43		6 0.20	175 2.87		6.2 0.17			0.1		12	156	3	1							
9/22 0725	142	63	9.4	97	357	8.1 8.6	10.0 0.84	11.0 0.48	1.8 0.05	8 0.27	188 3.08	20.0 0.42	7.3 0.21	0.0 0.00		0.0	2.6 ABS 0.0 As 0.00 PO <sub>4</sub> 0.02	12	174	7	1							

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SOUTH FORK EEL RIVER NEAR MIRANDA (STA. 7)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance at 25°C	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Per- cent sodium	Hardness as CaCO <sub>3</sub> in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by <sup>i</sup>				
			ppm	%Sat			Calcium (Ca)	Magnesium sum (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>	
10/14/64 1330	31	65	9.6	102	278	8.2 8.3	2.60 <sup>c</sup>		7.6 0.33		4 0.13	138 2.26		5.3 0.15		0.2		130	10	1	Median 17.12	USGS				
11/5 1500	134	59	11.7	116	246	8.3 8.4	2.10 <sup>c</sup>		9.4 0.41		3 0.10	116 1.90		7.4 0.21		0.3		105	5	1	Maximum 62.					
12/3 1430	5370	53	11.1	103	104	7.5 7.9	0.82 <sup>c</sup>		5.1 0.22		0 0.00	51 0.84		2.7 0.08		0.1		41	0	200	Minimum .06					
1/65 Inaccessible																										
2/9 1245	1400	46	10.5	89	154	7.4 8.1	1.34 <sup>c</sup>		6.6 0.29		0 0.00	84 1.38		3.0 0.08		0.1		67	0	120						
3/10 1500	500	52	9.6	88	197	7.8 8.1	1.76 <sup>c</sup>		7.0 0.30		0 0.00	108 1.77		3.9 0.11		0.0		88	0	20						
4/14 1500	720	52	10.1	92	178	7.8 8.2	1.52 <sup>c</sup>		6.7 0.29		0 0.00	95 1.56		3.4 0.10		0.1		76	0	40						
5/12 1430	1360	68	8.2	90	190	8.0 8.5	22. 1.10	6.8 0.56	1.1 0.03	2 0.07	99 1.62	8.0 0.17	3.7 0.10	0.9 0.01		0.1	13. —	83	0	11	117 <sup>f</sup> ABS 0.0 As PO <sub>4</sub> 0.10					
6/9 1100	232	62	9.0	93	238	8.0 8.4	2.16 <sup>c</sup>		8.2 0.36		3 0.10	129 2.11		3.8 0.11		0.1		108	0	5						
7/21 1430	88	74	10.2	119	295	8.3 8.6	2.74 <sup>c</sup>		11. 0.43		7 0.23	158 2.59		5.8 0.16		0.3		137	0	2						
8/4 1500	82	76	10.8	129	300	8.3 8.5	2.80 <sup>c</sup>		11. 0.48		5 0.17	166 2.72		6.2 0.17		0.1	PO <sub>4</sub> 0.05	140	0	1						
9/22 1400	64	68	10.2	112	349	8.2 8.5	44. 2.20 <sup>c</sup>	13. 1.10	11. 0.43	1.7 0.04	2 0.07	199 3.26	12. 0.25	7.4 0.21	0.2 0.00	0.1	13. —	165	0	1	197 <sup>f</sup> ABS 0.0 As PO <sub>4</sub> 0.06					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE (STA. 1c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhmhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> Total N.C. ppm	Tur- bidity in ppm	Coliform MPN/ml	Analyzed by			
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicor- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	equivalents per million									Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>	
														Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)									Boron (B)
10/6/64 1040		62	9.4	101	228	7.9 7.9	1.54 <sup>c</sup>		18. 0.78		0 0.00	11.4 1.87		6.1 0.17	2.4 0.04		0.0				34	77	0	1	USGS
11/11 1100		50	10.3	96	216	7.6 8.1	1.42 <sup>c</sup>		18. 0.78		0 0.00	10.7 1.75		6.5 0.18	4.3 0.07		0.3				35	71	0	3	
12/8 1110		44	10.2	87	256	7.6 8.2	1.62 <sup>c</sup>		22. 0.96		0 0.00	11.5 1.88		5.7 0.16	5.2 0.08		0.3				37	81	0	7	
1/13/65 1445		36	11.2	86	181	7.4 7.9	1.28 <sup>c</sup>		13. 0.57		0 0.00	8.7 1.43		3.5 0.10	4.7 0.08		0.1				31	64	0	50	
2/3 1300		41	11.3	93	163	7.4 8.2	1.16 <sup>c</sup>		11. 0.48		0 0.00	8.0 1.31		2.3 0.06	3.7 0.06		0.1				29	58	0	40	
3/3 1200		43	10.9	92	163	7.6 7.9	1.12 <sup>c</sup>		11. 0.48		0 0.00	7.6 1.25		2.2 0.06	1.6 0.03		0.1				30	56	0	25	
4/7 1220		48	9.5	86	247	7.9 8.0	1.64 <sup>c</sup>		20. 0.87		0 0.00	11.4 1.87		6.2 0.17	1.3 0.02		0.4				35	85	0	20	
5/4 1115		55	9.8	97	275	8.0 8.2	2.3. 1.15	2.1. 0.75	20. 0.87	2.3. 0.06	0 0.00	12.1 1.98	31. 0.65	5.6 0.16	1.1 0.02		0.1	22	ABS 0.1 As 0.01 PO <sub>4</sub> 0.15	189 <sup>f</sup>	31	95	0	13	
6/15 1130		59	9.5	99	324	8.2 8.4	2.18 <sup>c</sup>		26. 1.13		6 0.20	12.8 2.10		8.2 0.23	0.2 0.00		0.1		PO <sub>4</sub> 0.10		34	109	0	3	
7/14 1230		75	8.7	107	373	8.4 8.3	2.40 <sup>c</sup>		32. 1.39		2 0.07	14.2 2.33		9.0 0.25	3.0 0.05		0.2		PO <sub>4</sub> 0.25		37	120	0	3	
8/11 1220		70	8.8	103	418	8.4 8.5	2.48 <sup>c</sup>		32. 1.70		2 0.07	14.8 2.43		10. 0.28	2.2 0.04		0.2		PO <sub>4</sub> 0.50		41	124	0	3	
9/15 1150		63	9.6	104	385	8.0 7.6	2.0. 1.00	14. 1.18	28. 1.65	4.2 0.11	0 0.00	13.7 2.25	67. 1.39	8.5 0.24	2.5 0.04		0.1	26	ABS 0.0 As 0.01 PO <sub>4</sub> 0.77	264 <sup>f</sup>	42	109	0	3	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
KIAMATH RIVER BELOW IRON GATE DAM (STA. 1f)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dissolved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bidity in ppm	Coliform MPN/ml	Analyzed by i					
			ppm	% Sat			equivalents per million																				
							Calcium (Ca)	Magne- sum (Mg)	Sodium (Na)	Potassium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>		
10/6/64 0845	1360	61	8.5	92	197	7.5 8.0	1.26 <sup>c</sup>	16.0 0.70				93 1.52			3.6 0.10	3.4 0.05			PO <sub>4</sub> 0.45	36	63	0	1	Medium 43	USGS		
11/11 0930	1890	52	7.1	69	167	7.1 8.0	1.04 <sup>c</sup>	14.0 0.61				77 1.26			3.3 0.09	5.1 0.08			0.1		PO <sub>4</sub> 0.60	37	52	0	2	Maximum 24,000	
12/8 0950	2700	43	8.5	73	244	7.2 8.1	1.50 <sup>c</sup>	22.0 0.96				102 1.67			5.0 0.14	5.2 0.08			0.2		PO <sub>4</sub> 0.50	38	78	0	4	Minimum 2.3	
1/13/65 1035	9530	36	12.8	100	138	7.3 7.3	0.82 <sup>c</sup>	11.0 0.48				60 0.98			2.5 0.07	4.7 0.08			0.1		PO <sub>4</sub> 0.50	37	41	0	50		
2/3 1000	11200	41	11.4	96	137	7.4 8.0	0.85 <sup>c</sup>	11.0 0.48				59 0.97			1.6 0.05	3.8 0.06			0.2		PO <sub>4</sub> 0.20	36	43	0	30		
3/3 0945	7880	43	10.5	91	137	7.4 7.8	0.87 <sup>c</sup>	11.0 0.48				62 1.02			2.4 0.07	2.2 0.04			0.1		PO <sub>4</sub> 0.25	36	44	0	20		
4/7 0950	3670	48	10.1	93	193	7.5 7.9	1.18 <sup>c</sup>	17.0 0.74				78 1.28			3.4 0.10	1.2 0.02			0.1		PO <sub>4</sub> 0.30	39	59	0	15		
5/4 0835	1660	55	8.2	83	285	8.2 8.2	2.0 1.00	24.0 1.04	10 0.82	1.6 0.04	0 0.00	121 1.98		35 0.73	5.5 0.16	0.9 0.01		23	0.1	ABS 0.0 PO <sub>4</sub> 0.20	36	91	0	5			
6/15 0850	778	67	9.9	115	340	8.1 8.9	2.04 <sup>c</sup>	30.0 1.30			18 0.69	94 1.54			8.7 0.25	1.3 0.02			0.1		PO <sub>4</sub> 0.15	39	102	0	5		
7/14 0935	708	70	9.4	113	378	8.4 8.2	2.22 <sup>c</sup>	35.0 1.52			0 0.00	130 2.13			8.5 0.24	2.8 0.05			0.2		PO <sub>4</sub> 0.50	41	111	4	3		
8/11 0905	1020	68	7.0	83	424	8.1 7.9	2.32 <sup>c</sup>	42.0 1.83			0 0.00	136 2.23			9.5 0.27	3.2 0.05			0.2		PO <sub>4</sub> 0.55	44	116	4	3		
9/15 0945	2220	63	7.7	85	375	7.6 7.6	2.2 1.10	34.0 1.48	12 0.96	4.9 0.13	0 0.00	126 2.07		71 1.48	7.9 0.22	4.2 0.07		28	0.1	ABS 0.0 PO <sub>4</sub> 0.62	40	104	1	3			

- a Field pH.  
b Laboratory pH.  
c Sum of calcium and magnesium in ppm.  
d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".  
e Derived from conductivity vs TDS curves.  
f Determined by addition of analyzed constituents.  
g Gravimetric determination.  
h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.  
i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER NEAR KLAMATH (STA. 3)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25° C)	pH $\frac{a}{b}$	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub>		Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>
			ppm	%Sat <sup>i</sup>			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)			Boron (B)	Silica (SiO <sub>2</sub> )			
10/15/64 1135	2990	62	9.4	96	200	$\frac{8.0}{7.6}$	$\frac{1.54^c}{1.70}$		$\frac{11}{0.48}$		$\frac{0}{0.00}$	$\frac{104}{1.70}$		$\frac{4.9}{0.14}$		$\frac{0.0}{0.0}$		77	0	1	Median 313	USGS	
11/14 1035	4150	55	9.3	87	193	$\frac{7.7}{8.2}$	$\frac{1.50^c}{1.50}$		$\frac{10}{0.44}$		$\frac{0}{0.00}$	$\frac{96}{1.57}$		$\frac{5.2}{0.15}$		$\frac{0.1}{0.1}$		75	0	2	Maximum 620		
12/2 1015	62200	49	11.5	100	88	$\frac{7.4}{7.5}$	$\frac{0.78^c}{0.78}$		$\frac{3.4}{0.15}$		$\frac{0}{0.00}$	$\frac{42}{0.69}$		$\frac{1.4}{0.04}$		$\frac{0.1}{0.1}$		39	5	140	Minimum 0.23		
1/65	Inaccessible																						
2/10 1010	32400	43	11.5	92	141	$\frac{7.3}{7.8}$	$\frac{1.20^c}{1.20}$		$\frac{5.5}{0.24}$		$\frac{0}{0.00}$	$\frac{74}{1.21}$		$\frac{2.6}{0.07}$		$\frac{0.0}{0.0}$		60	0	200			
3/9 1545	20100	50	9.5	84	154	$\frac{7.6}{8.1}$	$\frac{1.30^c}{1.30}$		$\frac{5.7}{0.25}$		$\frac{0}{0.00}$	$\frac{80}{1.31}$		$\frac{1.4}{0.04}$		$\frac{0.0}{0.0}$		65	0	80			
4/14 0830	11600	52	9.6	87	175	$\frac{7.6}{8.2}$	$\frac{1.54^c}{1.54}$		$\frac{6.9}{0.30}$		$\frac{0}{0.00}$	$\frac{94}{1.54}$		$\frac{2.8}{0.08}$		$\frac{0.2}{0.2}$		77	0	30			
5/12 0800	13700	59	9.6	95	164	$\frac{7.8}{8.1}$	$\frac{1.8}{0.90}$	$\frac{6.1}{0.50}$	$\frac{6.1}{0.27}$	$\frac{0.9}{0.02}$	$\frac{1}{0.03}$	$\frac{81}{1.33}$	$\frac{11}{0.23}$	$\frac{2.3}{0.06}$	$\frac{1.6}{0.03}$	$\frac{0.2}{0.2}$	15	70	2	50	102 <sup>f</sup>		
6/8 0930	est. 8300	63	8.3	86	164	$\frac{7.8}{8.2}$	$\frac{1.40^c}{1.40}$		$\frac{6.8}{0.30}$		$\frac{0}{0.00}$	$\frac{83}{1.36}$		$\frac{2.3}{0.06}$		$\frac{0.0}{0.0}$		70	2	25			
7/20 1200	est. 3840	70	8.9	99	247	$\frac{8.1}{8.5}$	$\frac{2.08^c}{2.08}$		$\frac{11}{0.48}$		$\frac{4}{0.13}$	$\frac{118}{1.93}$		$\frac{4.7}{0.13}$		$\frac{0.0}{0.0}$		104	1	4			
8/3 1315	est. 3100	73	9.3	107	261	$\frac{8.0}{8.5}$	$\frac{2.16^c}{2.16}$		$\frac{12}{0.52}$		$\frac{4}{0.13}$	$\frac{122}{2.00}$		$\frac{5.6}{0.16}$		$\frac{0.1}{0.1}$	19	108	1	4			
9/21 1300	2400	62	9.7	99	327	$\frac{8.0}{8.1}$	$\frac{2.9}{1.45}$	$\frac{10}{0.33}$	$\frac{23}{1.04}$	$\frac{3.1}{0.03}$	$\frac{0}{0.00}$	$\frac{138}{2.26}$	$\frac{44}{0.92}$	$\frac{7.0}{0.20}$	$\frac{1.3}{0.02}$	$\frac{0.1}{0.1}$	21	114	1	10	210 <sup>f</sup>		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KIAMATH RIVER AT ORLEANS (STA. 2c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent sodium	Hardness as CaCO <sub>3</sub> in ppm		Turbidity in ppm	Coliform MPN/ml	Analyzed by i		
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)			Boron (B)	Silica (SiO <sub>2</sub> )				Other constituents	
10/13/64 1345		60	10.7	109	208	8.7 8.1	1.44 <sup>c</sup>	1.44 <sup>c</sup>	1.4 0.61		0 0.00	1.07 1.75		4.9 0.14		0.0						72	0	2	USGS
11/3 1325		55	11.2	107	194	8.2 8.2	1.40 <sup>c</sup>	1.40 <sup>c</sup>	1.3 0.57		0 0.00	.98 1.61		4.3 0.12		0.1						70	0	1	
12/1 1250		46	12.3	105	86	7.3 7.7	0.74 <sup>c</sup>	0.74 <sup>c</sup>	3.5 0.15		0 0.00	4.1 0.67		1.4 0.04		0.1						37	3	50	
1/65	Inaccessible																								
2/8 1510		43	11.7	96	142	7.7 8.0	1.13 <sup>c</sup>	1.13 <sup>c</sup>	6.2 0.27		0 0.00	.76 1.25		1.3 0.04		0.0						59	0	100	
3/8 1340		47	9.5	83	148	7.8 8.1	1.20 <sup>c</sup>	1.20 <sup>c</sup>	7.1 0.31		0 0.00	.76 1.25		1.4 0.04		0.0						60	0	60	
4/12 1425		51	10.1	92	182	8.1 7.7	1.46 <sup>c</sup>	1.46 <sup>c</sup>	8.5 0.37		0 0.00	.92 1.51		3.1 0.09		0.1						73	0	20	
5/10 1310		56	10.2	99	165	7.8 8.4	0.90 <sup>c</sup>	0.90 <sup>c</sup>	8.2 0.36	1.3 0.03	1 0.03	.78 1.28	1.4 0.29	2.6 0.07		0.1	15	ABS 0.0 PO <sub>4</sub> 0.00			101 <sup>f</sup>	67	1	30	
6/7 1315	est. 4200	64	9.4	100	161	8.0 8.2	1.26 <sup>c</sup>	1.26 <sup>c</sup>	7.6 0.33		0 0.00	.78 1.28		2.4 0.07		0.0						64	0	25	
7/19 1415	est. 2700	72	9.2	107	266	8.2 8.5	2.08 <sup>c</sup>	2.08 <sup>c</sup>	15 0.65		4 0.13	1.19 1.95		5.4 0.15		0.1						104	0	4	
8/2 1340	est. 1970	74	9.2	109	276	8.2 8.2	2.10 <sup>c</sup>	2.10 <sup>c</sup>	17 0.74		1 0.03	1.26 2.07		6.3 0.16		0.1						105	0	4	
9/20 1310		62	10.3	107	346	8.1 8.0	1.2 2.10	1.2 2.10	28 1.22	3.7 0.09	0 0.00	1.36 2.23	5.1 1.06	7.8 0.22	2.2 0.04	0.1	25	ABS 0.0 PO <sub>4</sub> 0.15		228 <sup>f</sup>	35	110	0	10	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)  
**ANALYSES OF SURFACE WATER**  
 NORTH COASTAL REGION (NO. 1)  
 KLAMATH RIVER NEAR SEiad VALLEY (STA. 2b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent Co- sed- iment	Hardness as CaCO <sub>3</sub> ppm	Tur- bid- ity in ppm	Coliform MPN/ml	Analyzed by	
						equivalents																
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)
10/6/64 1140	1570	62	10.4	112	8.2 7.7	c 1.60		18 0.78		0 0.00	120 1.97		6.5 0.18	1.6 0.03		0.0			80	0	1	USGS
11/11 1135	2270	50	11.0	102	7.9 7.3	c 1.56		16 0.70		0 0.00	109 1.79		6.5 0.18	0.6		0.3			78	0	1	
12/8 1205	3660	44	11.0	94	7.8 8.2	c 1.64		19 0.83		0 0.00	115 1.86		5.7 0.16	4.7 0.08		0.2			82	0	3	
1/13/65 1345		39	11.8	94	7.5 8.2	c 1.40		11 0.48		0 0.00	92 1.51		3.3 0.09	4.1 0.07		0.1			70	0	90	
2/3 1400		42	10.1	84	7.6 8.1	c 1.30		8.6 0.37		0 0.00	84 1.38		2.1 0.06	3.3 0.05		0.1			65	0	40	
3/3 1345		44	10.8	93	7.7 8.1	c 1.18		11 0.48		0 0.00	79 1.29		2.0 0.06	2.3 0.04		0.1		PO <sub>4</sub> 0.20	59	0	25	
4/7 1355	5990	48	8.7	79	7.9 8.1	c 1.68		16 0.70		0 0.00	114 1.87		5.1 0.14	1.4 0.02		0.1		PO <sub>4</sub> 0.20	84	0	15	
5/4 1210	4810	54	10.0	98	8.0 8.4	0.90	8.8 0.72	12 0.52	2.1 0.05	3 0.10	101 1.66	17 0.35	2.3 0.06	0.2 0.00		0.1	18	ABS 0.0 As 0.00 PO <sub>4</sub> 0.05	81	0	10	
6/15 1225	2430	58	10.1	103	8.0 8.5	c 1.96		16 0.70		6 0.20	110 1.80		5.4 0.15	0.1 0.00		0.1		PO <sub>4</sub> 0.05	98	0	4	
7/14 1330	1180	73	9.5	115	8.4 8.3	c 2.40		26 1.13		1 0.03	145 2.38		8.5 0.24	2.2 0.04		0.2		PO <sub>4</sub> 0.35	120	0	3	
8/11 1340	1300	70	8.6	101	8.3 8.5	c 2.48		34 1.48		4 0.13	146 2.39		10 0.28	1.7 0.03		0.2		PO <sub>4</sub> 0.35	124	0	5	
9/15 1240	2500	64	9.8	107	8.2 8.2	23 1.15	13 1.07	34 1.48	4.0 0.10	0 0.00	137 2.25	65 1.35	8.5 0.24	3.4 0.05		0.1	28	ABS 0.0 As 0.01 PO <sub>4</sub> 0.70	111	0	2	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO.1)  
MAD RIVER NEAR ARCATA (STA. 6a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Mineral constituents in parts per million											Total diss- olved solids in ppm	Par- sani- tod- ium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>				
			equivalents per million																				
			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)	Boron (B)							Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>		
10/13/64 1635	96	65	9.5	103	194	7.9 8.2	1.74 <sup>c</sup>	4.5 0.20		0 0.00	104 1.70		2.4 0.07			0.0		10	87	2	1	Median 8.4	USGS
11/3 1600	184	58	9.7	94	183	7.4 8.2	1.84 <sup>c</sup>	0.13 <sup>c</sup>		0 0.00	92 1.51		2.5 0.07			0.3		10	82	7	4	Maximum 62.	
12/1 1630	11,100	51	9.5	85	76	7.2 7.6	0.60 <sup>c</sup>	3.3 0.14		0 0.00	30 0.48		2.5 0.07			0.1		19	30	5	360	Minimum 2.3	
1/65 Inaccessible																							
2/10 1605	1,600	45	11.7	97	121	7.4 7.5	1.06 <sup>c</sup>	3.8 0.17		0 0.00	62 1.02		1.6 0.05			0.0		14	53	2	150		
3/8 1550	418	54	9.0	83	170	7.7 7.9	1.56 <sup>c</sup>	4.2 0.18		0 0.00	86 1.41		2.7 0.08			0.0		10	78	7	55		
4/12 1750	1,100	56	9.4	89	135	7.6 7.5	1.18 <sup>c</sup>	4.4 0.19		0 0.00	66 1.03		2.4 0.07			0.2		14	59	5	100		
5/10 1730	425	62	8.5	87	173	7.8 8.4	2.4 1.20	4.6 0.38	0.7 0.02	2 0.07	86 1.41	10 0.21	2.5 0.07	1.5 0.02		0.0	7.6	92 <sup>f</sup>	79	5	25		
6/7 1630	172	60	9.9	99	219	8.1 8.4	2.06 <sup>c</sup>	5.3 0.23		2 0.07	117 1.92		2.0 0.06			0.2		10	103	4	2		
7/19 1745	67	69	9.2	101	259	8.1 8.6	2.50 <sup>c</sup>	7.1 0.31		4 0.13	136 2.23		3.1 0.09			0.0		11	125	7	3		
8/2 1740	69	70	9.2	102	262	8.1 8.5	2.52 <sup>c</sup>	6.1 0.27		3 0.10	141 2.31		3.4 0.10			0.1		10	126	5	2		
9/20 1800	41	65	9.5	100	257	8.0 8.3	4.4 2.20 <sup>c</sup>	3.4 0.28	1.1 0.03	1 0.03	141 2.31	15 0.31	2.5 0.07	0.1 0.00		0.0	9.0	145 <sup>f</sup>	124	7	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
NORTH COASTAL REGION (NO.1)  
MATTOLE RIVER NEAR PETROLIA (STA. 7a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micro-mhos at 25°C)	pH a 5	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sed- ium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>			
			ppm	%Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silico (SiO <sub>2</sub> )	Other constituents <sup>d</sup>
10/14/64 0910	24	60	10.0	100	265	7.8 8.3	2.30 <sup>c</sup> 2.30 <sup>c</sup>		9.8 0.43		2 0.07	125 2.05		4.9 0.14			0.1			1			USGS		
11/5 1035	142	55	10.6	100	239	7.6 8.3	2.04 <sup>c</sup> 2.04 <sup>c</sup>		8.5 0.37		2 0.07	94 1.54		4.4 0.12			0.1			14					
12/3 1020	4700	51	10.7	96	115	7.3 7.3	0.86 <sup>c</sup> 0.86 <sup>c</sup>		5.9 0.26		0 0.00	46 0.75		3.1 0.09			0.0			160					
1/65 Inaccessible																									
2/11 1030	986	46	10.5	88	149	7.4 8.1	1.20 <sup>c</sup> 1.20 <sup>c</sup>		6.6 0.29		0 0.00	68 1.11		3.7 0.10			0.0			100					
3/9 1020	322	52	10.0	90	181	7.6 8.0	1.56 <sup>c</sup> 1.56 <sup>c</sup>		6.5 0.28		0 0.00	84 1.38		3.3 0.09			0.1			8					
4/13 1010	562	53	10.0	92	174	7.6 8.0	1.44 <sup>c</sup> 1.44 <sup>c</sup>		6.7 0.29		0 0.00	76 1.25		3.2 0.09			0.2			45					
5/11 0930	Est. 407	60	9.6	96	169	7.7 8.5	2.3 1.15	3.3 0.27	6.5 0.28	1.1 0.03	2 0.07	76 1.25	15. 0.31	3.4 0.10		1.0 0.02	0.1	11. —	ABS 0.0 As 0.00 PO <sub>4</sub> 0.00	35					
6/8 1530	EST. 160	61	9.2	93	217	7.8 8.3	1.88 <sup>c</sup> 1.88 <sup>c</sup>		7.6 0.33		1 0.03	104 1.70		3.0 0.08			0.1			15					
7/21 1105	Est. 90	71	11.5	130	257	8.0 8.4	2.30 <sup>c</sup> 2.30 <sup>c</sup>		8.4 0.37		2 0.07	126 2.07		4.0 0.11			0.0			1					
8/4 1110	EST. 45	72	10.4	118	264	8.1 8.5	2.36 <sup>c</sup> 2.36 <sup>c</sup>		8.5 0.37		4 0.13	126 2.07		4.6 0.13			0.1			0					
9/22 1010	33	62	10.5	107	281	7.9 8.3	40. 2.06	6.6 0.54	2.1 0.40	1.3 0.03	3 0.10	131 2.15	27. 0.56	4.8 0.14		0.3 0.06	0.1	9.8 —	ABS 0.0 As 0.00 PO <sub>4</sub> 0.02	1					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MILL CREEK NEAR COVELO (STA. 5e)

Date and time sampled P.S.T.	Discharge Temp in cfs in of	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH A B	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sol- idum	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by i																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		ppm	% Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silico (SiO <sub>2</sub> )	Other constituents <sup>d</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
10/64	Not Sampled																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water."

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);



TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
OUTLET CREEK NEAR LONGVALE (STA. 5b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a	Mineral constituents in parts per million										Total dissolved solids in ppm	Per-cent sodium	Hardness as CaCO <sub>3</sub> in ppm		Turbidity in ppm	Coliform MPN/ml	Analyzed by i		
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)			Boron (B)	Silica (SiO <sub>2</sub> )				Other constituents <sup>d</sup>	
10/15/64 1015		64	9.2	99	346	8.2 8.3	2.74 <sup>c</sup>		17 0.74		0.10	2.39		0.90			2.5			21	137	12	1		USGS
11/6 1315		59	10.9	111	384		2.90 <sup>c</sup>		21 0.91		0.07	1.61 2.64		30 0.85			3.6			24	145	10	1		
12/4 0900	660	46	10.7	92	109	7.3 7.9	0.81 <sup>c</sup>		6.1 0.27		0.00	46 0.75		3.5 0.10			0.2			25	40	2	10		
1/65 Inaccessible																									
2/2 1230		49			128	7.4 8.2	1.08 <sup>c</sup>		5.3 0.23		0.00	66 1.08		2.9 0.08	1.0 0.02		0.2	PO <sub>4</sub> 0.05		18	54	0	15		
3/11 0845	73	50	10.2	93	181	7.6 8.0	1.50 <sup>c</sup>		7.6 0.33		0.00	90 1.48		6.2 0.17			0.4			18	75	1	1		
4/15 0945	505	49	9.2	83	123	7.4 7.4	1.02 <sup>c</sup>		5.1 0.22		0.00	62 1.02		2.4 0.07			0.1			18	51	0	200		
5/13 0800	67	68	8.7	98	182	7.8 8.5	1.05 <sup>c</sup>	5.7 0.47	8.0 0.35	0.8 0.02	2 0.07	92 1.51	8.0 0.17	5.4 0.15	1.2 0.02		0.4	113 ABS 0.0 PO <sub>4</sub> 0.00	19	76	0	3			
6/9 1420	24	73	11.0	130	223	8.2 8.5	1.90 <sup>c</sup>		9.9 0.43		0.07	114 1.87		7.6 0.21			0.6			18	95	0	1		
7/22 0840	1.5	72	8.4	98	285	8.0 8.6	2.42 <sup>c</sup>		12 0.52	6 0.20	6 0.20	137 2.25		14 0.39			1.2			18	121	0	1		
8/5 0740	1.3	72	8.0	96	327	7.6 8.6	2.68 <sup>c</sup>		16 0.70	7 0.23	7 0.23	147 2.41		24 0.68			1.9			21	134	2	1		
9/23 0830	5.0	60	8.3	85	343	7.9 8.1	1.80 <sup>c</sup>	13 1.04	15 0.65	1.6 0.04	0 0.00	160 2.62	10 0.21	26 0.73	0.3 0.00		2.0	9.8 ABS 0.0 PO <sub>4</sub> 0.01	18	142	11	1			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

REDWOOD CREEK AT ORICK (STA. 3b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Specific conductance (micro-mhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent suspended - Total	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bid- ity in ppm	Coliform <sup>h</sup> MPN/ml	Analyzed by <sup>i</sup>
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- tro- ate (NO <sub>3</sub> )	Fluo- ride (F)	Baron (B)	Silico (SiO <sub>2</sub> )				
10/15/64 0930	19	58	8.8	86	7.2 7.9	1.20 <sup>c</sup>	5.2 0.23	3.2 0.14	0.7 0.02	0.00	67 1.10		6.0 0.17			0.0		60	5	1	USGS
11/3 1655	89	57	10.0	96	7.1 8.1	1.48 <sup>c</sup>	5.2 0.23	3.7 0.16	0.00	0.00	74 1.21		4.7 0.13			0.1		74	13	3	
12/2 1120	9990	52	9.3	84	7.3 7.4	0.50 <sup>c</sup>	2.9 0.13	3.8 0.17	0.00	0.00	24 0.39		1.8 0.05			0.2		25	5	550	
1/65 Inaccessible																					
2/10 0905	904	43	8.9	71	7.2 7.9	0.90 <sup>c</sup>	3.2 0.14	3.8 0.17	0.00	0.00	48 0.79		2.5 0.07			0.0		45	6	260	
3/9 1420	410	52	10.6	96	7.3 7.9	1.16 <sup>c</sup>	3.7 0.16	3.7 0.16	0.00	0.00	50 0.97		2.4 0.07			0.0		58	10	55	
4/14 1000	430	51	9.7	87	7.4 7.5	1.20 <sup>c</sup>	3.8 0.17	3.8 0.17	0.00	0.00	60 0.96		2.8 0.08			0.0		50	11	150	
5/11 1445	585	64	9.2	96	7.4 8.0	1.00 <sup>c</sup>	2.2 0.18	3.8 0.17	0.7 0.02	0.00	61 1.00		3.8 0.11	1.0 0.02		0.0	7.6 ABS 0.0 PO <sub>4</sub> 0.10	59	9	55	
6/7 1745	160	58	9.4	92	7.4 8.2	1.48 <sup>c</sup>	4.6 0.20	4.6 0.20	0.00	0.00	74 1.21		3.9 0.11			0.0		74	13	6	
7/20 1345	47	65	9.2	97	7.3 8.1	1.68 <sup>c</sup>	5.6 0.24	5.6 0.24	1 0.03	0.00	82 1.34		5.2 0.15			0.0		84	15	1	
8/3 0840	25	61	8.6	87	7.1 8.2	1.68 <sup>c</sup>	5.5 0.24	5.5 0.24	0.00	0.00	86 1.41		6.0 0.17			0.0		84	13	1	
9/21 1300	24	65	8.4	89	7.2 7.5	1.35 <sup>c</sup>	2.3 0.19	5.8 0.25	4.6 0.02	0.00	78 1.26	16 0.33	6.5 0.16	0.6 0.01		0.1	8.6 ABS 0.0 PO <sub>4</sub> 0.03	77	13	3	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in eqm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water."

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
SALMON RIVER AT SONESEAR (STA. 2a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH at 25°C	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent calcium in ppm	Hardness as CaCO3 ppm		Turbidity in ppm	Coliform MPN/ml	Analyzed by <sup>h</sup>	
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO3)	Bicarbonate (HCO3)	Sulfate (SO4)	Chloride (Cl)	Nitrate (NO3)	Fluoride (F)			Boron (B)	Silica (SiO2)				Other constituents <sup>d</sup>
10/64	Not Sampled																							
11/	Not Sampled																							
12/	Not Sampled																							
1/65	Not Sampled																							
2/	Not Sampled																							
3/	Not Sampled																							
4/	Not Sampled																							
5/10	2800	53	10.2	95	83	7.4 7.9	1.8 0.15	1.9 0.08	0.8 0.02	0 0.00	44 0.72	3.0 0.06	0.7 0.02	1.0 0.02		0.0	12	ABS 0.0 PO4 0.04	51 <sup>f</sup>	9	38	2	15	
13/5																								
6/	Not Sampled																							
7/	Not Sampled																							
8/	Not Sampled																							
9/20	174	64	9.6	102	177	8.2 8.2	3.5 0.29	3.8 0.17	2.0 0.05	0 0.00	95 1.56	7.0 0.15	2.0 0.06	1.1 0.02		0.0	16	ABS 0.0 PO4 0.04	110 <sup>f</sup>					
1400																								
																							USGS	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (No. 1)  
SCOTT RIVER NEAR FORT JONES (STA. 1b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH $\frac{a}{b}$	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> Total N.C. ppm	Tur- bidity in ppm	Coliform MPN/ml	Analyzed by i					
			ppm	% Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silico (SiO <sub>2</sub> )	Other constituents <sup>d</sup>		
10/5/64 1500	53	66	10.8	126	291	8.1 8.3	2.84 <sup>c</sup>		5.4 0.23		6 0.20	162 2.66		3.8 0.11			0.0			0.0		7	142	0	1	Medium 9.1	USGS
11/10 1430	112	49	9.2	88	277	7.9 8.4	2.82 <sup>c</sup>		5.1 0.22		3 0.10	165 2.70		3.0 0.08			0.0			0.0		7	141	1	3	Maximum 230	
12/7 1520	312	46	10.6	98	187	7.5 8.2	1.74 <sup>c</sup>		3.7 0.16		0 0.00	105 1.72		2.1 0.06			0.1			0.1		8	87	1	4	Minimum 0.13	
1/12/65 1530	2650	42	9.7	84	187	7.3 8.2	1.82 <sup>c</sup>		3.6 0.16		0 0.00	110 1.80		1.0 0.03			0.0			0.0		8	91	1	40		
2/2 1500	2200	43	8.3	74	186	7.4 8.3	1.92 <sup>c</sup>		3.8 0.17		1 0.03	109 1.79		1.0 0.03			0.0			0.0		8	96	5	40		
3/2 1540	1020	48	8.9	84	181	7.6 8.2	1.80 <sup>c</sup>		3.9 0.17		0 0.00	110 1.80		1.0 0.03			0.0			0.0		9	90	0	15		
4/6 1520	700	50	8.8	85	179	7.9 8.0	1.76 <sup>c</sup>		3.8 0.17		0 0.0	104 1.70		1.2 0.03			0.0			0.0		9	88	3	10		
5/3 1500	1340	54	9.6	96	452	8.2 8.5	2.59 <sup>c</sup>	15 1.25	30 1.30	2.3 0.06	10 0.33	254 4.16	9.0 0.19	16 0.45	1.1 0.02		0.4		ABS 0.0 PO <sub>4</sub> 0.45 As 0.01	285 <sup>f</sup>	25	192	0	10			
6/14 1800	588	59	9.0	97	174	7.7 8.4	1.64 <sup>c</sup>		3.1 0.13		4 0.13	94 1.54		1.9 0.05			0.0			0.0		7	82	0	4		
7/14 1505	125	75	9.7	124	281	8.0 8.0	2.82 <sup>c</sup>		4.7 0.20		0 0.00	168 2.75		3.5 0.10			0.0			0.0		7	141	3	2		
8/10 1500	76	74	10.5	134	290	8.1 8.6	2.96 <sup>c</sup>		5.4 0.23		7 0.23	164 2.69		4.4 0.12			0.0			0.0		7	148	2	1		
9/14 1515	53	69	11.7	97	292	8.0 8.4	31 1.55	16 1.35	5.9 0.26	0.8 0.02	2 0.07	174 2.85	0.8 0.12	3.7 0.03	2.1		0.0		ABS 0.0 PO <sub>4</sub> 0.04 As 0.00	168 <sup>f</sup>	8	145	0	1			

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)  
SHASTA RIVER NEAR YREKA (STA. 1a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhm-cm at 25°C)	pH a	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent sediment in ppm	Hardness as CaCO <sub>3</sub> in ppm		Turbidity in ppm	Coliform <sup>b</sup> MPN/ml	Analyzed by		
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)			Boron (B)	Silica (SiO <sub>2</sub> )				Other constituents <sup>d</sup>	
10/6/64 0735	112	58	9.2	97	562	8.2 8.0	4.32 <sup>c</sup>	41 1.78		19 0.63	291 4.77		26 0.73							29	216	0	1	Median 619	USGS
11/11 0830	188	45	11.1	99	584	8.2 8.5	4.10 <sup>c</sup>	46 2.00		10 0.33	297 4.87		29 0.82							33	205	0	1	Maximum 2400	
12/8 0830	196	46	10.9	98	515	8.3 8.6	3.92 <sup>c</sup>	40 1.74		16 0.53	264 4.33		24 0.68							31	196	0	4	Minimum 5.0	
1/13/65 0920	940	40	9.2	76	440	8.1 8.5	3.74 <sup>c</sup>	26 1.13		8 0.27	247 4.05		15 0.42							23	187	0	20		
2/3 0845	510	43	8.8	76	421	8.2 8.6	3.80 <sup>c</sup>	25 1.09		10 0.33	239 3.92		13 0.37							22	190	0	10		
3/3 0830	314	44	7.3	64	466	8.2 8.4	3.82 <sup>c</sup>	30 1.30		8 0.27	256 4.20		17 0.48							25	191	0	4		
4/7 0840	499	47	7.6	69	616	8.3 8.4	4.60 <sup>c</sup>	56 2.44		10 0.33	340 5.57		26 0.73							35	230	0	16		
5/4 0735	141	54	9.6	96	452	8.2 8.5	52 <sup>c</sup> 2.59	30 1.30	2.3 0.06	10 0.33	254 4.16	9.0 0.19	16 0.45	1.1 0.02			40	ABS 0.0 PO <sub>4</sub> 0.15	285 <sup>f</sup>	25	192	0	10		
6/15 0750	141	64	6.8	76	561	8.4 8.8	4.58 <sup>c</sup>	40 1.74		26 0.87	280 4.59		26 0.73							28	229	0	10		
7/14 0830	69	68	7.3	86	565	8.3 8.6	4.62 <sup>c</sup>	40 1.74		18 0.60	304 4.98		25 0.71							27	231	0	3		
8/11 0800	43	68	8.0	94	578	8.4 8.7	4.68 <sup>c</sup>	43 1.87		22 0.73	304 4.98		26 0.73							29	234	0	2		
9/15 0830	66	62	9.3	102	567	8.3 8.6	32 <sup>c</sup> 1.60	42 1.83	3.1 0.06	13 0.43	314 5.15	8.0 0.17	26 0.73	0.3 0.00			51	ABS 0.0 PO <sub>4</sub> 0.18	360 <sup>f</sup>	28	226	0	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SMITH RIVER NEAR CRESCENT CITY (STA. 3a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent sodium	Hardness as CaCO <sub>3</sub> in ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by <sup>i</sup>				
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>	
10/15/64 1400	176	62	10.3	105	146	8.1 8.1	1.42 <sup>c</sup>		2.9 0.13		0 0.00	84 1.38		2.8 0.08			0.0				8	71	2	1	Median 15	USGS
11/4 0920	298	55	10.2	96	133	7.5 8.1	1.30 <sup>c</sup>		2.8 0.12		0 0.00	73 1.20		2.5 0.07			0.1				8	65	5	1	Maximum 50	
12/2 0820	25000	51	11.8	105	81	7.3 7.9	0.76 <sup>c</sup>		1.2 0.08		0 0.00	42 0.69		1.4 0.04			0.0				10	38	4	35	Minimum 0.23	
1/65	Inaccessible																									
2/10 1200	3270	43	10.8	87	95	7.3 7.8	0.90 <sup>c</sup>		2.0 0.09		0 0.00	52 0.85		1.8 0.05			0.1				9	45	2	150		
3/9 1730	1970	49	11.6	101	110	7.3 8.2	1.04 <sup>c</sup>		2.6 0.11		0 0.00	62 1.02		1.4 0.04			0.0				10	52	1	40		
4/13 1745	1680	47	9.1	77	113	7.6 7.8	1.10 <sup>c</sup>		2.2 0.10		0 0.00	65 1.07		1.7 0.05			0.0				8	55	2	12		
5/11 1616	1400	60	9.8	98	113	7.8 8.0	8.4 0.42	8.0 0.66	2.1 0.09	0.3 0.01	0 0.00	64 1.05	4.0 0.08	1.7 0.05	1.7 0.03		0.0	13	ABS 0.0 PO <sub>4</sub> 0.10	As 0.00	8 <sup>f</sup>	54	2	30		
6/8 0745	760	58	10.3	100	137	7.9 8.2	1.34 <sup>c</sup>		2.4 0.10		0 0.00	77 1.26		2.1 0.06			0.0				7	67	4	15		
7/20 1030	345	64	9.6	100	167	8.1 8.4	1.64 <sup>c</sup>		3.5 0.15		2 0.07	91 1.49		2.15 0.07			0.0				8	82	4	3		
8/3 1015	295	60	8.9	89	177	8.1 8.4	1.76 <sup>c</sup>		3.2 0.14		1 0.03	99 1.62		2.8 0.08			0.0				7	88	5	1		
9/21 1045	220	60	9.8	98	193	8.1 8.4	1.7 0.85	13 1.07	3.3 0.14	0.9 0.02	2 0.07	105 1.72	8.0 0.17	2.8 0.08	1.4 0.02		0.0	13	ABS 0.0 PO <sub>4</sub> 0.06	As 0.00	7 <sup>f</sup>	96	7	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water."

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR BURNT RANCH (Sta. 4b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a, b	Mineral constituents in										parts per million					Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub> Total ppm	Tur- bidity in ppm	Coliform MPN/ml	Analyzed by <sup>i</sup>	
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)	Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents <sup>d</sup>									
10/13/64 1020	270	60	9.7	100	158	8.0 8.0		4.7 0.20		0 0.00	80 1.31		6.4 0.18	0.0 0.00		0.0			PO <sub>4</sub> 0.00		12	70	4	1				USGS
11/3 1045	650	53	10.7	100	165	7.7 8.2		5.1 0.22		0 0.00	80 1.31		6.5 0.18	0.2 0.01		0.1			PO <sub>4</sub> 0.05		13	73	7	1				
12/1 1030	6010	46	11.5	99	96	7.3 7.8		2.6 0.11		0 0.00	45 0.74		1.4 0.04	1.5 0.02		0.2			PO <sub>4</sub> 0.10		12	42	5	55				
1/65	Inaccessible																											
2/8 1045	2600	43	11.0	91	156	7.3 8.3		3.3 0.14		2 0.07	82 1.34		1.1 0.03	1.4 0.02		01.			PO <sub>4</sub> 0.05		9	75	3	30				
3/8 1045	est. 1100	47	10.0	88	159	7.8 8.1		3.5 0.15		0 0.00	86 1.41		1.2 0.05	0.2 0.01		0.0			PO <sub>4</sub> 0.05		9	75	4	15				
4/12 1115	1020	52	9.0	84	165	7.7 8.1		4.0 0.17		0 0.00	89 1.46		2.9 0.08	0.6 0.01		0.0			PO <sub>4</sub> 0.10		10	78	5	5				
5/10 1015	1360	56	10.2	100	145	7.8 8.0		3.2 0.14		0 0.00	80 1.31		2.4 0.07	1.6 0.03		0.0	14		ABS 0.0 As 0.00 PO <sub>4</sub> 0.05		9	68	2	5				
6/7 1005	1190	64	9.1	98	107	8.0 8.1		2.7 0.12		0 0.00	58 0.95		2.0 0.06	1.0 0.02		0.0			PO <sub>4</sub> 0.15		11	50	2	3				
7/19 1030	est. 400	59	9.2	93	141	8.1 8.2		4.1 0.18		0 0.00	77 1.26		3.8 0.11	1.7 0.03		0.2			PO <sub>4</sub> 0.05		12	63	0	1				
8/2 1030	est. 300	72	9.0	105	157	8.0 8.2		4.6 0.20		0 0.00	83 1.36		5.3 0.15	1.6 0.03		0.0			PO <sub>4</sub> 0.00		12	70	2	2				
9/20 1000	est. 250	59	9.5	96	171	8.0 8.2		4.7 0.20		0 0.00	90 1.48		6.0 0.17	0.1 0.00		0.1	11		ABS 0.0 As 0.00 PO <sub>4</sub> 0.00		11	77	3	2				

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).



TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR HOOPA (STA. 4)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micro mhos at 25°C)	pH	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent sodium	Hardness as CaCO <sub>3</sub> ppm	Turbidity in ppm	Coliform MPN/ml	Analyzed by <sup>i</sup>			
			ppm	% Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents
10/13/64 1120	436	62	10.2	105	196	8.0 8.2	1.80 <sup>c</sup>		4.9 0.21		0 0.00	105 1.72		6.2 0.17	0.0 0.00		0.0	PO <sub>4</sub> 0.00	90	4	1	Median 219	USGS		
11/3 1130	1110	55	10.7	101	198	7.8 8.1	1.76 <sup>c</sup>		5.3 0.23		0 0.00	95 1.56		7.8 0.22	1.1 0.02		0.1	PO <sub>4</sub> 0.05	88	10	1	Maximum 620			
12/1 1130	17800	48	11.0	96	120	7.6 7.9	1.12 <sup>c</sup>		2.5 0.11		0 0.00	60 0.98		1.6 0.05	1.6 0.03		0.3	PO <sub>4</sub> 0.15	56	7	160	Minimum 2.3			
1/65 Inaccessible																									
2/8 1230	9500	44	11.5	95	155	7.5 8.4	1.49 <sup>c</sup>		2.9 0.13		2 0.07	87 1.43		0.8 0.02	1.3 0.02		0.0	PO <sub>4</sub> 0.00	74	0	170				
3/8 1200	2850	48	10.3	89	170	7.2 8.3	1.66 <sup>c</sup>		3.2 0.14		3 0.10	91 1.49		1.2 0.03	0.8 0.01		0.0	PO <sub>4</sub> 0.10	84	4	100				
4/12 1555	2980	53	9.8	91	176	7.9 8.0	1.72 <sup>c</sup>		3.8 0.17		0 0.00	98 1.61		2.0 0.06	0.8 0.01		0.0	PO <sub>4</sub> 0.10	86	6	40				
5/10 1200	3250	58	9.9	97	168	7.8 8.5	1.00 <sup>c</sup>	7.8 0.64	3.0 0.13	0.3 0.01	1 0.03	95 1.56	5.0 0.10	1.9 0.05	1.8 0.03		0.0	ABS 0.0 As 0.00 PO <sub>4</sub> 0.00	100 <sup>f</sup>	82	2	40			
6/7 1205	3800	66	8.6	93	160	8.0 8.4	1.52 <sup>c</sup>		3.7 0.16		1 0.03	86 1.41		2.1 0.06			0.0		78	4	30				
7/19 1545	940	73	8.8	102	214	7.7 8.5	1.96 <sup>c</sup>		4.7 0.20		4 0.13	112 1.84		3.6 0.10	2.0 0.03		0.0	PO <sub>4</sub> 0.10	99	1	4				
8/2 1225	920	71	8.4	96	224	7.5 8.5	2.18 <sup>c</sup>		4.5 0.20		4 0.13	118 1.93		4.4 0.12	2.4 0.04		0.0	PO <sub>4</sub> 0.05	109	6	2				
9/20 1600	est. 720	69	8.0	89	264	7.0 8.2	1.44 <sup>c</sup>	5.1 0.42	4.9 0.21	0.2 0.02	0 0.00	150 2.46	13 0.27	4.8 0.14	0.0 0.00		0.0	ABS 0.0 As 0.00 PO <sub>4</sub> 0.08	149 <sup>f</sup>	131	8	1			

<sup>a</sup> Field pH.<sup>b</sup> Laboratory pH.<sup>c</sup> Sum of calcium and magnesium in ppm.<sup>d</sup> Heavy metals reported in table of "Spectrographic Analyses of Surface Water"<sup>e</sup> Derived from conductivity vs TDS curves<sup>f</sup> Determined by addition of analyzed constituents.<sup>g</sup> Gravimetric determination.<sup>h</sup> Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.<sup>i</sup> Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO.1)

TRINITY RIVER AT LEWISTON (STA. 4a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (microhm/cm at 25°C)	pH	Mineral constituents in equivalents per million										Total dis- solved solids in ppm	Per- cent sod- ium	Hardness as CaCO <sub>3</sub>		Tur- bid- ity in ppm	Coliform MPN/ml	Analyzed by	
			ppm	%Sat			Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potas- sium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)			Boron (B)	Silico (SiO <sub>2</sub> )				Other constituents
10/13 0900	205	47	10.9	99	95	7.3 7.7	6.85 <sup>c</sup>		2.3 0.10		0 0.00	52 0.85		1.3 0.04	0.0 0.00		0.0		PO <sub>4</sub> 0.00	44	1	1		USGS
11/3 0855	257	47	11.2	101	93	7.2 7.8	6.86 <sup>c</sup>		2.0 0.09		0 0.00	53 0.87		0.8 0.02	1.0 0.02		0.0		PO <sub>4</sub> 0.05	43	0	1		
12/1 0850	254	46	11.0	98	96	7.2 8.0	6.85 <sup>c</sup>		2.7 0.12		0 0.00	52 0.85		0.7 0.02	0.9 0.01		0.1		PO <sub>4</sub> 0.05	44	1	1		
1/65	Inaccessible																							
2/8 0915	159	45	9.7	85	91	7.2 7.8	6.85 <sup>c</sup>		2.2 0.10		0 0.00	51 0.84		0.8 0.02	1.6 0.03		0.0		PO <sub>4</sub> 0.05	42	0	100		
3/8 0910	155	45	8.9	78	91	7.3 7.9	6.85 <sup>c</sup>		2.2 0.10		0 0.00	51 0.84		0.7 0.02	1.3 0.02		0.0		PO <sub>4</sub> 0.10	42	0	30		
4/12 0920	170	47	10.9	98	92	7.3 7.9	6.85 <sup>c</sup>		2.3 0.10		0 0.00	51 0.84		0.9 0.03	0.8 0.01		0.2		PO <sub>4</sub> 0.10	43	1	20		
5/10 0825	164	49	10.4	96	90	7.6 7.8	7.0 6.35 <sup>c</sup>	6.1 0.50	2.0 0.09	0.5 0.01	0 0.00	52 0.85	1.0 0.02	1.4 0.04	0.6 0.01		0.0	13	ABS 0.0 As 0.00 PO <sub>4</sub> 0.00	42	0	20		
6/7 0830	166	49	10.5	97	89	7.5 8.1	6.86 <sup>c</sup>		2.1 0.09		0 0.00	49 0.80		1.2 0.03	0.8 0.01		0.1		PO <sub>4</sub> 0.05	43	3	35		
7/15 0845	157	50	10.4	98	90	7.6 8.2	6.84 <sup>c</sup>		2.6 0.11		0 0.00	50 0.82		1.1 0.03	1.5 0.02		0.0		PO <sub>4</sub> 0.20	42	1	40		
8/2 0815	157	49	10.6	98	89	7.4 8.1	6.84 <sup>c</sup>		2.2 0.10		0 0.00	50 0.82		1.3 0.04	1.9 0.03		0.0		PO <sub>4</sub> 0.00	42	1	15		
9/20 0820	157	44	10.0	87	90	7.3 7.6	12 6.60 <sup>c</sup>	2.8 0.23	2.2 0.10	0.5 0.01	0 0.00	49 0.80	2.0 0.04	1.1 0.03	1.1 0.02		0.0	12	ABS 0.0 As 0.00 PO <sub>4</sub> 0.05	42	2	10		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water"

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS);

TABLE D-2 (Continued)

## ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

VAN DUZEN RIVER NEAR BRIDGEVILLE (STA. 5a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen		Specific conductance (micromhos at 25°C)	pH a b	Mineral constituents in parts per million										Total dissolved solids in ppm	Percent sodium	Hardness as CaCO <sub>3</sub> in ppm		Turbidity in ppm	Coliform MPN/ml	Analyzed by		
			ppm	%Sat			Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Fluoride (F)			Barium (Ba)	Silica (SiO <sub>2</sub> )				Other constituents	
																								As	Pb
10/14/64 1550	9.0	65	9.9	105	259	8.0 8.3	2.36 <sup>c</sup>		8.0 0.35		5.0 0.17	125 2.05		4.6 0.13			0.2			1	Median 22	USGS			
11/4 1540	17	54	9.8	92	216	8.1 8.2	1.98 <sup>c</sup>		5.5 0.24		0.00	103 1.69		2.8 0.08			0.1			1	Maximum 62				
12/2 1545	5470	51	10.5	95	96	7.6 7.8	0.87 <sup>c</sup>		2.0 0.09		0.00	46 0.75		0.9 0.03			0.0			240	Minimum 2.3				
1/65	Inaccessible																								
2/9 1705	980	45	9.7	81	140	7.5 8.6	1.28 <sup>c</sup>		3.6 0.16		0.00	76 1.25		1.2 0.03			0.0			200					
3/8 1740	300	54	10.0	94	164	7.8 8.2	1.51 <sup>c</sup>		4.4 0.19		0.00	80 1.31		0.8 0.02			0.0			40					
4/13 1410	764	51	10.3	93	145	7.9 7.9	1.34 <sup>c</sup>		4.0 0.17		0.00	74 1.21		1.1 0.03			0.2			200					
5/11 1210	est. 230	65	9.3	99	181	8.0 8.1	0.26 1.30	4.6 0.38	4.1 0.18	0.9 0.02	0.00	96 1.57	12 0.25	1.4 0.04	1.4 0.04		0.1	9.3	ABS 0.0 PO <sub>4</sub> 0.10	40					
6/9 0900	est. 110	58	7.6	75	232	8.1 8.1	2.22 <sup>c</sup>		6.0 0.26		3.0 0.10	122 2.00		1.9 0.05			0.1			6					
7/21 0845	est. 34	72	8.7	100	295	8.3 8.7	2.82 <sup>c</sup>		7.7 0.33		10.0 0.33	139 2.28		3.4 0.10			0.1			1					
8/4 0840	est. 19	74	8.5	100	303	8.2 8.6	2.68 <sup>c</sup>		8.3 0.36		7.0 0.23	148 2.43		3.8 0.11			0.1			1					
9/21 1600	est. 10	61	9.4	96	338	8.1 8.5	1.48 2.40	10 0.84	2.8 0.43	2.3 0.06	7.0 0.23	162 2.66	30 0.62	4.4 0.12	0.1 0.00		0.2	11	ABS 0.0 PO <sub>4</sub> 0.03	1					

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in ppm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water."

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories,

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-2 (Continued)  
ANALYSES OF SURFACE WATER  
NORTH COASTAL REGION (NO. 1)  
WILLIAMS CREEK NEAR COVELO (STA. 5f)

Date and time sampled P.S.T.	Discharge Temp in cfs	Temp in °F	Dissolved oxygen	Specific conductance (at 25°C)	pH	Mineral constituents in parts per million										Total dis- solved solids in ppm	Per- cent sodium	Hardness as CaCO <sub>3</sub>	Tur- bid- ity in ppm	Coliform MPN/ml	Analyzed by			
						Calcium (Ca)	Magne- sium (Mg)	Sodium (Na)	Potass- ium (K)	Carbon- ate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sulf- ate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Fluo- ride (F)							Boron (B)	Silica (SiO <sub>2</sub> )	Other constituents
10/64	Not Sampled																							
11/6 1130	54		11.6	288	8.3 8.5	35 1.75	13 1.05	5.7 0.25	0.7 0.02	6 0.20	137 2.25	31 0.65	1.6 0.05	0.5 0.01	0.1 0.01	0.2	7.6		160 <sup>f</sup>	8	140	18	1	USGS
12/4 1115	45		11.4	111	7.4 8.0	12 0.60	4.9 0.40	4.9 0.12	0.9 0.02	0 0.00	56 0.92	8.0 0.17	0.4 0.01	0.8 0.01	0.5 0.03	0.0			60 <sup>f</sup>	11	50	4	7	
1/65	Not Sampled																							
2/2 1000	43		11.9	102	7.4 7.9	12 0.60	4.4 0.36	2.8 0.12	0.7 0.02	0 0.00	54 0.89	7.0 0.15	0.4 0.01	0.1 0.00		0.0	8.8		60 <sup>f</sup>	11	48	4	30	
3/11 1120	50		9.8	139	7.6 8.1			2.6 0.11		0 0.00	72 1.18		0.9 0.03	0.0 0.00		0.0				8	66	7	4	
4/15 1150	48		9.1	141	7.7 7.7			3.4 0.15		0 0.00	69 1.13		0.7 0.02	2.0 0.03		0.2				10	64	7	30	
5/13 1020	59		9.3	157	7.9 8.1	19 0.95	6.3 0.53	3.3 0.14	0.5 0.01	0 0.00	84 1.38	11 0.23	0.9 0.03	1.1 0.02		0.0	11		90 <sup>f</sup>	9	74	5	5	
6/9 1625	75		7.2	203	8.0 8.4			4.6 0.20		2 0.07	107 1.75		1.0 0.03	1.3 0.02		0.0				9	100	9	2	
7/22 1100	77		9.5	295	8.3 8.7			4.9 0.21		8 0.27	160 2.62		1.2 0.03	1.3 0.02	0	0.2				6	152	8	1	
8/5 1100	74		10.3	286	8.3 8.5			4.9 0.21		5 0.17	159 2.61		1.5 0.04	1.6 0.03		0.1				7	145	6	0	
9/23 1100	74		10.0	343	8.3 8.4	39 1.95	19 1.59	6.0 0.26	1.3 0.03	6 0.20	192 3.15	19 0.40	1.8 0.05	0.1 0.00		0.0	13		202 <sup>f</sup>	68	177	10	1	

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Heavy metals reported in table of "Spectrographic Analyses of Surface Water".

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS).

TABLE D-3  
ANALYSES OF TRACE ELEMENTS  
IN SURFACE WATER

Station	Sta. No.	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Eel River near Dos Rios	5d	9-23	8.6	0.57*	0.29*	1.4*	1.4*	1.4*	24	5.7*	0.29*	1.4*	0.29*	0.6	1.4*	0.57*	0.29*	5.7 *	
Eel River, Middle Fork at Dos Rios	5c	9-23	9.1	0.57*	0.29*	1.4*	1.4*	1.4*	15	5.7*	0.29*	1.4*	3.4	1.2	1.4*	0.57*	0.29*	5.7*	
Eel River at Scotia	6	9-22	1.4*	0.57*	0.29*	1.4*	1.4*	1.4*	44	0.29*	0.29*	1.4*	1.4*	1.2*	1.4*	0.57*	0.29*	5.7*	
Klamath River below Iron Gate Dam	1f	5-4 9-15	19 8.6	1.3 * 0.57*	0.67* 0.4 *	3.3* 1.4*	3.3* 7.1	3.3* 1.4*	40 26	1.3* 5.7*	0.67* 0.29*	3.3* 3.4	0.67** 3.4	0.93 1.6	3.3* 1.4*	1.3 * 0.7	12 8.3	13 *	
Klamath River near Klamath	3	5-12	35 1.4*	1.3 * 0.57*	0.67* 0.29*	3.3* 1.4*	3.3* 1.4*	3.3* 1.4*	73 2860	1.3 * 5.7*	0.67* 0.29*	3.3* 1.4*	1.7 0.29*	3.2 3.1	3.3 1.4*	1.3** 2.2	2.5 6.6	13 *	
Klamath River at Orleans	2c	5-10 9-20	17 6.3	1.3 * 0.57*	0.67* 0.29*	3.3* 1.4*	3.3* 1.4*	3.3* 1.4*	43 2860	1.3 * 5.7*	0.67* 0.29*	3.3* 1.4*	0.67** 2.1	1.7 3.4	3.3* 1.4*	1.3** 0.6	3.3 6.3	13 *	
Klamath River near Seiad Valley	2b	5-4 9-15	21 8.9	1.3 * 0.57*	0.67* 0.29*	3.3* 1.4*	3.3* 1.4*	3.3* 1.4*	83 24	1.3 * 5.7*	0.67* 0.29*	3.3* 1.4*	0.67** 2.7	3.0 1.6	3.3* 1.4*	1.3* 0.57*	4.8 9.1	13 *	
Mad River near Arcata	6a	5-10 9-20	18 1.4*	1.3 * 0.57*	0.67* 0.29*	3.3* 1.4*	3.3* 8.3	3.3* 1.4*	22 686	1.3 * 5.7*	0.67* 0.29*	3.3* 1.4*	0.67** 0.29*	1.4 0.29*	3.3* 1.4*	1.3* 0.57*	11 0.29*	13 *	
Outlet Creek near Longvale	5b	5-13	11	1.3 *	0.67*	3.3*	3.3*	3.3*	10	1.3 *	0.67*	3.3*	0.67*	0.67**	3.3*	1.3**	0.67*	13 *	
Trinity River near Hoopa	4	5-10 9-20	18 1.4*	1.3 * 0.57*	0.67* 0.29*	3.3* 1.4*	3.3* 1.4*	3.3* 1.4*	27 10	1.3 * 5.7*	0.67* 0.29*	8.7 1.4*	0.67** 0.29*	3.0 2.2	3.3* 1.4*	1.3* 0.57*	15 0.29*	13 *	

\* Results are less than the amount indicated

\*\* Equal to, but slightly less than the amount indicated





APPENDIX E  
GROUND WATER QUALITY



## GROUND WATER QUALITY

The Ground Water Quality Data Program provides basic information on the quality characteristics of the State's ground waters. Data presented in this appendix are measured values of selected quality characteristics of ground waters in the North Coastal Area, as shown on the "Area Orientation Map". The Ground Water Quality Data Program is based on systematic sampling of a predetermined network and is reported annually by water year. The Ground Water Quality Data Program is performed in cooperation with local, and other state and federal agencies.

All data presented in this volume are within the North Coastal Water Quality Control Region (No. 1) excluding the Russian River drainage basin and the area along the coast south of the Mattole River drainage. Wells sampled in the Ground Water Quality Data Program are arranged by basin and tabulated in sequence by township, range, and section. The eleven ground water basins sampled during 1964-65 in the North Coastal Area are shown on Figure C-1 in Appendix C.

The Ground Water Quality Data Program consists of selecting locations to be sampled, collection of samples by Department personnel or cooperators, laboratory analysis by an assigned agency, examination of the data to note trends or significant changes, and publication of the data and findings.

Except where noted, tabulated values for temperature are those measured in the field at the time of sampling. Comments on local conditions are noted in the field books but are not included in the tabulation.

Tabulated values for dissolved minerals are the analytical quantity reported in milligrams per liter (mpl) and a computed value for equivalents per million (epm). Electrical conductivity is reported as micromhos at 25°C and temperature in degrees Fahrenheit. Laboratory analyses of ground water

were performed in the Department's Chemical Laboratory at Bryte in accordance with "Standard Methods for the Examination of Water and Waste Water", Twelfth Edition; or by the U. S. Geological Survey (USGS) in accordance with "Methods for Collection and Analysis of Water Samples", Water Supply Paper 1454. The two methods yield comparable results.

During 1964-65, no ground waters in the North Coastal Area were analyzed for trace elements.

#### Well Numbering System

The state well numbering system used in this report is based on the township, range, and section subdivision of the United States Public Land Survey, and is described in more detail in Appendix C of this bulletin. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report the number of a well, assigned in accordance with this system, is referred to as the State Well Number.

TABLE E-1  
MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME LAU SAMPLER	TEMP	LAB-PH FLD-PH	LAB-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SI02	TDS SUM	TH NCH			
SMITH RIVER PLAIN																				
16N/01W-02Q01 H 09/22/65 5050 1630	--	8.1	223	--	--	15 .65	--	0.0 .00	114 1.87	--	11 .31	--	--	--	--	--	84 0			
16N/01W-15C01 H 07/07/65 5050 1655	--	7.3	84	--	--	6.5 .28	--	0.0 .00	24 .39	--	10 .28	2.4 .04	--	--	--	--	23 4			
16N/01W-17K02 H 09/16/65 5050 1330	--	7.0	282	6.3 .31 12	14 1.15 45	25 1.09 42	1.0 .03 1	0.0 .00 0.0	60 .98 40	3.6 .07 3	30 .85 34	.36 .58 23	--	.0	--	161 145	74 25			
16N/01W-20A02 H 07/07/65 5050 1635	--	7.3	288	--	--	26 1.13	--	0.0 .00	39 .64	--	23 .65	.48 .77	--	--	--	--	75 43			
16N/01W-20H01 H 07/07/65 5050 1630	--	7.9	177	--	--	14 .61	--	0.0 .00	40 .66	--	17 .48	.19 .31	--	--	--	--	47 14			
17N/01W-02G01 H 06/24/65 5050 1510	--	7.9	113	--	--	5.7 .25	--	0.0 .00	42 .69	--	8.4 .24	--	--	--	--	--	40 6			
17N/01W-04J01 H 08/26/65 5050 1620	--	7.6	251	--	--	4.2 .18	--	0.0 .00	142 2.33	--	7.7 .22	--	--	--	--	--	122 6			
17N/01W-14C01 H 08/00/65 5050 1630	--	7.4	192	3.8 .19 10	19 1.56 78	5.4 .23 12	0.7 .02 1	0.0 .00 0.0	99 1.62 84	0.5 .01 1	9.0 .25 13	2.8 .05 3	--	.0	--	114 90	87 6			
18N/01W-05G01 H 07/07/65 5050 1515	--	7.4	177	--	--	14 .61	--	0.0 .00	14 .23	--	33 .93	.12 .19	--	--	--	--	40 29			
18N/01W-17R01 H 09/10/65 5050 1505	--	8.3	228	17 .85 36	9.8 .81 35	15 .65 28	0.7 .02 1	0.0 .00	112 1.84 80	0.0 .00	16 .45 19	1.0 .02 1	--	.0	--	140 114	83 0			

TABLE E-1 (Continued)  
MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	LAB-PH FLD-PH	LAU-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER			
				CA	MG	NA	K	CO3	HCO3	SO4	CL	ND3	F	D	SI02	TDS SUM	TH NCH		
BUTTE VALLEY																			
45N/02W-01P01 D 08/11/65 5050 1030	--	--	210	20 1.00	9.7 .80	8.2 .36	--	--	--	--	--	--	--	--	--	--	--	90	
46N/01W-17B01 D 08/11/65 5050 1100	--	--	320	20 1.00	14 1.22	33 1.44	--	--	--	--	--	--	--	--	--	--	--	111	
46N/02W-25R02 D 08/11/65 5050 1040	--	8.4	261	19 .95 33	17 1.40 48	10 .44 15	4.1 .10 3	2.0 .07 2	127 2.08 73	24 .50 18	1.6 .05 2	8.0 .13 5	--	.0	--	202 148	117 10		
47N/01W-23H02 D 08/11/65 5050 1200	--	--	215	--	--	30 1.31	--	--	--	--	--	--	--	--	--	--	--	38	
48N/01E-30N01 D 08/11/65 5050 1040	--	8.6	526	24 1.20 20	31 2.55 42	44 1.91 31	16 .41 7	14 .47 8	272 4.46 74	25 .52 9	17 .48 8	6.1 .10 2	--	.1	--	341 310	189 0		
SHASTA VALLEY																			
42N/05W-20J01 D 08/11/65 5050 0830	--	--	360	--	--	--	--	--	--	--	--	--	--	--	--	--	--	148	
42N/06W-10J01 D 08/11/65 5050 0810	--	--	534	--	--	--	--	--	--	--	--	--	--	--	--	--	--	304	
44N/06W-22K01 D 08/11/65 5050 0710	--	--	533	59 2.94	19 1.63	--	--	--	--	--	--	--	--	--	--	--	--	229	
45N/05W-06E01 D 08/10/65 5050 1410	--	--	961	--	--	240 10.44 1	--	--	--	--	--	--	--	2.3	7.6	--	--	34	



TABLE E-1 (Continued)  
MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	LAB-PH FLD-PH	LAB-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER			
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SIU2	TDS SUM	TH NCH		
SCOTT RIVER VALLEY																			
42N/09W-27K01 D 08/10/65 5050 1120	--	--	55	7.0 .35	1.1 .09	--	--	--	--	--	--	--	--	--	--	--	--	22	
43N/09W-02G01 D 08/10/65 5050 0950	60.0F	8.2	452	52 2.59 47	32 2.63 48	4.8 .21 4	1.0 .03 1	0.0 .00	295 4.84 91	14 .29 5	1.4 .04 1	9.7 .16 3	--	.1	--	263 260	260 18		
43N/09W-08F01 D 08/10/65 5050 1140	--	--	131	18 .90	3.9 .32	--	--	--	--	--	--	--	--	--	--	--	61		
43N/09W-24F01 D 08/10/65 5050 1145	55.0F	8.5	459	54 2.69 48	32 2.63 47	5.2 .23 4	0.4 .01	10 .33 6	302 4.95 88	4.8 .10 2	2.8 .08 1	9.3 .15 3	--	.1	--	261 267	268 4		
43N/09W-24F02 D 08/10/65 5050 1150	56.0F	--	397	42 2.10	27 2.24	--	--	--	--	--	--	--	--	--	--	--	217		
43N/09W-28D02 D 08/10/65 5050 1025	--	--	86	9.1 .45	0.3 .03	--	--	--	--	--	--	--	--	--	--	--	24		
HAYFORK VALLEY																			
31N/12W-12L01 D 08/12/65 5050 1045	63.0F	--	184	17 .85	9.4 .77	7.2 .31	--	--	--	--	2.9 .08	1.4 .02	--	--	--	--	81		
31N/12W-15K01 D 08/12/65 5050 1145	60.0F	--	238	23 1.15	12 1.01	--	--	--	--	--	--	--	--	--	--	--	108		
32N/11W-35G01 D 08/12/65 5050 1005	58.0F	--	352	44 2.20	12 .99	14 .61	--	--	--	--	20 .56	1.3 .02	--	--	--	--	159		

TABLE E-1 (Continued)  
MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	LAB-PH FLD-PH	LAB-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SI02	TDS SUM	TH NCH			
MAD RIVER VALLEY																				
05N/01E-04H02 H 07/23/65 5050 1455	--	8.6	371	20 1.00 25	19 1.56 39	30 1.31 33	3.1 .08 2	6.0 .20 5	177 2.90 74	1.0 .02 1	27 .76 19	1.1 .02 1	--	.1	--	212 194	130 0			
05N/01E-08J H 07/23/65 5050 1510	--	8.1	351	20 1.00 28	14 1.15 32	32 1.39 39	1.5 .04 1	0.0 .00 0	157 2.57 71	0.0 .00 0	38 1.07 29	0.1 .00 0	--	.0	--	215 183	108 0			
06N/01E-07M01 H 07/23/65 5050 1152	--	8.0	539	46 2.30 40	33 2.71 47	15 .65 11	2.7 .07 1	0.0 .00 0	279 4.58 78	1.0 .02 0	45 1.27 22	0.1 .00 0	--	.1	--	317 280	249 20			
06N/01E-08H01 H 07/23/65 5050 1435	--	7.9	207	11 .55 30	7.2 .59 32	14 .61 33	3.6 .09 5	--	50 .82 45	21 .44 24	15 .42 23	9.5 .15 8	--	.0	--	143 106	57			
06N/01E-17D01 H 07/23/65 5050 1156	--	8.7	379	40 2.00 48	21 1.73 42	9.2 .40 10	1.2 .03 1	12 .40 9	204 3.35 79	5.0 .10 2	13 .37 9	1.9 .03 1	--	.0	--	233 203	188 1			
06N/01E-19D01 H 07/23/65 5050 1145	--	8.5	365	52 2.59 63	13 1.07 26	9.9 .43 10	1.2 .03 1	7.0 .23 6	212 3.48 85	3.0 .06 1	11 .31 8	0.7 .01 0	--	.0	--	225 202	184 0			
06N/01E-30N01 H 07/23/65 5050 1035	--	8.6	345	50 2.50 65	11 .90 24	9.0 .39 10	1.2 .03 1	9.0 .30 8	193 3.17 82	1.0 .02 1	12 .34 9	1.1 .02 1	--	.0	--	219 189	169 0			
06N/01E-32F01 H 07/23/65 5050 1450	--	8.6	721	12 .60 8	11 .90 13	129 5.61 78	3.6 .09 1	9.0 .30 4	262 4.30 59	0.0 .00 0	92 2.59 36	2.8 .05 1	--	.5	--	418 388	77 0			
06N/01W-01H01 H 07/23/65 5050 1420	--	7.6	123	5.6 .28 27	1.7 .14 13	14 .61 58	0.7 .02 2	0.0 .00 0	26 .43 40	5.0 .10 9	18 .51 47	2.3 .04 4	--	.0	--	70 60	21 0			

TABLE E-1 (Continued)  
MINERAL ANALYSIS OF GROUND WATER

STATION NUMBER				G.H. Q	DO	TEMP	LAB-PH FLD-PH	LAB-EC FLO-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
DATE TIME	LAB SAMPLER		MG						NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SI02	TDS SUM	TH NCH				
			CA																					
EUREKA PLAIN																								
03N/01W-05K01 H 07/27/65 5050 1505		--	8.1	148	6.0 .30 22	5.8 .48 35	13 .57 42	0.7 .02 1	--	53 .87 65	4.0 .08 6	14 .39 29	0.2 .00	--	.0	100 70	39							
04N/01W-08P01 H 10/11/65 5050 1440		--	8.2	159	4.8 .24 16	9.5 .78 51	11 .48 31	1.4 .04 3	0.0 .00	65 1.07 68	6.0 .12 8	14 .39 25	0.1 .00	--	.0	93 79	51 0							
04N/01W-16H01 H 08/28/65 5050 1545		--	8.6	495	38 1.90 36	25 2.06 39	29 1.26 24	3.7 .09 2	13 .43 8	240 3.94 74	4.0 .08 1	28 .79 15	7.4 .12 2	--	.1	313 266	196 0							
04N/01W-17801 H 10/11/65 5050 1450		--	8.2	151	8.8 .44 28	7.8 .64 40	11 .48 30	1.7 .04 3	0.0 .00	70 1.15 72	4.0 .08 5	13 .37 23	0.3 .00	--	.0	100 81	54 0							
05N/01E-18001 H 07/23/65 5050 1535		--	8.8	856	16 .80 9	16 1.32 15	156 6.79 75	5.2 .13 1	22 .73 8	300 4.92 56	0.0 .00 3	112 3.16 36	0.3 .00	--	1.5	516 476	104 0							
05N/01E-20001 H 07/23/65 5050 1525		--	8.0	269	14 .70 26	12 .99 36	23 1.00 37	1.6 .04 1	0.0 .00	108 1.77 65	4.0 .08 3	30 .85 31	0.4 .01	--	.0	179 138	84 0							
EEL RIVER VALLEY																								
02N/01W-04D01 H 08/09/65 5050 1215		--	8.3	317	30 1.50 44	18 1.48 43	8.6 .37 11	2.5 .06 2	2.0 .07 2	144 2.36 71	21 .44 13	8.1 .23 7	14 .23 7	--	.1	194 175	149 28							
03N/02W-27G01 H 07/27/65 5050 1605		--	8.3	4150	176 8.78 22	161 13.23 33	355 15.44 39	102 2.61 7	8.0 .27 1	352 5.77 14	79 1.64 4	1170 82.99 81	3.5 .06	--	.1	2756 2227	1102 801							
03N/02W-35M01 H 07/27/65 5050 1620		--	8.4	985	111 5.54 54	7.1 .58 6	86 3.74 36	16 .41 4	4.0 .13 1	266 4.36 42	28 .58 6	184 5.19 50	4.4 .07 1	--	.1	572 571	306 82							

TABLE E-1 (Continued)  
MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	LAB-PH FLD-PH	LAB-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER						MILLIGRAMS PER LITER			
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SID2	TDS SUM	TH NCH		
																		PERCENT REACTANCE VALUE	
EEL RIVER VALLEY																			
02N/01W-07F01 H 07/28/65 5050 1115	--	8.5	436	33 1.65 35	29 2.38 51	14 .61 13	1.8 .05 1	6.0 .20 4	171 2.80 62	43 .89 20	22 .62 14	0.7 .01	--	.0	--	256 233	200 50		
03N/01W-30N01 H 07/27/65 5050 1545	--	8.1	427	41 2.05 44	26 2.14 46	9.1 .40 9	1.8 .05 1	0.0 .00	210 3.44 76	26 .54 12	12 .34 8	12 .19 4	--	.1	--	238 231	210 38		
03N/02W-02A02 H 07/27/65 5050 1520	--	8.2	1870	72 3.59 22	74 6.08 37	158 6.87 41	2.6 .07	0.0 .00	78 1.28 8	20 .42 2	534 5.06 89	7.4 .12 1	--	.0	--	1192 906	482 418		
C3N/02W-13J01 H 08/09/65 5050 1125	--	8.2	2420	197 9.83 41	97 7.97 33	141 6.13 25	4.3 .11	0.0 .00	202 3.31 14	40 .83 3	706 9.91 83	1.9 .03	--	.0	--	1664 1286	890 725		
ROUND VALLEY																			
22N/12W-06L02 D 08/24/65 5050	--	7.9	359	34 1.70	17 1.40	--	--	--	--	12 .25	--	--	--	--	--	203	154		
22N/12W-08F01 D 08/24/65 5050	--	8.1	280	20 1.00 34	16 1.32 45	14 .61 21	0.7 .02 1	0.0 .00	157 2.57 89	6.2 .13 5	6.5 .18 6	0.1 .00	--	.1	--	144 141	115 0		
22N/12W-19F01 D 08/24/65 5050	--	8.3	543	37 1.85	49 4.03	--	--	--	--	--	--	--	--	.0	--	309	294		
22N/13W-01J03 D 08/24/65 5050	--	7.7	543	37 1.85	28 2.30	--	--	--	--	--	--	--	--	.1	--	306	207		
22N/13W-12K01 D 08/24/65 5050	--	7.9	306	24 1.20	16 1.32	15 .65	--	--	--	--	--	--	--	.0	--	179	128		

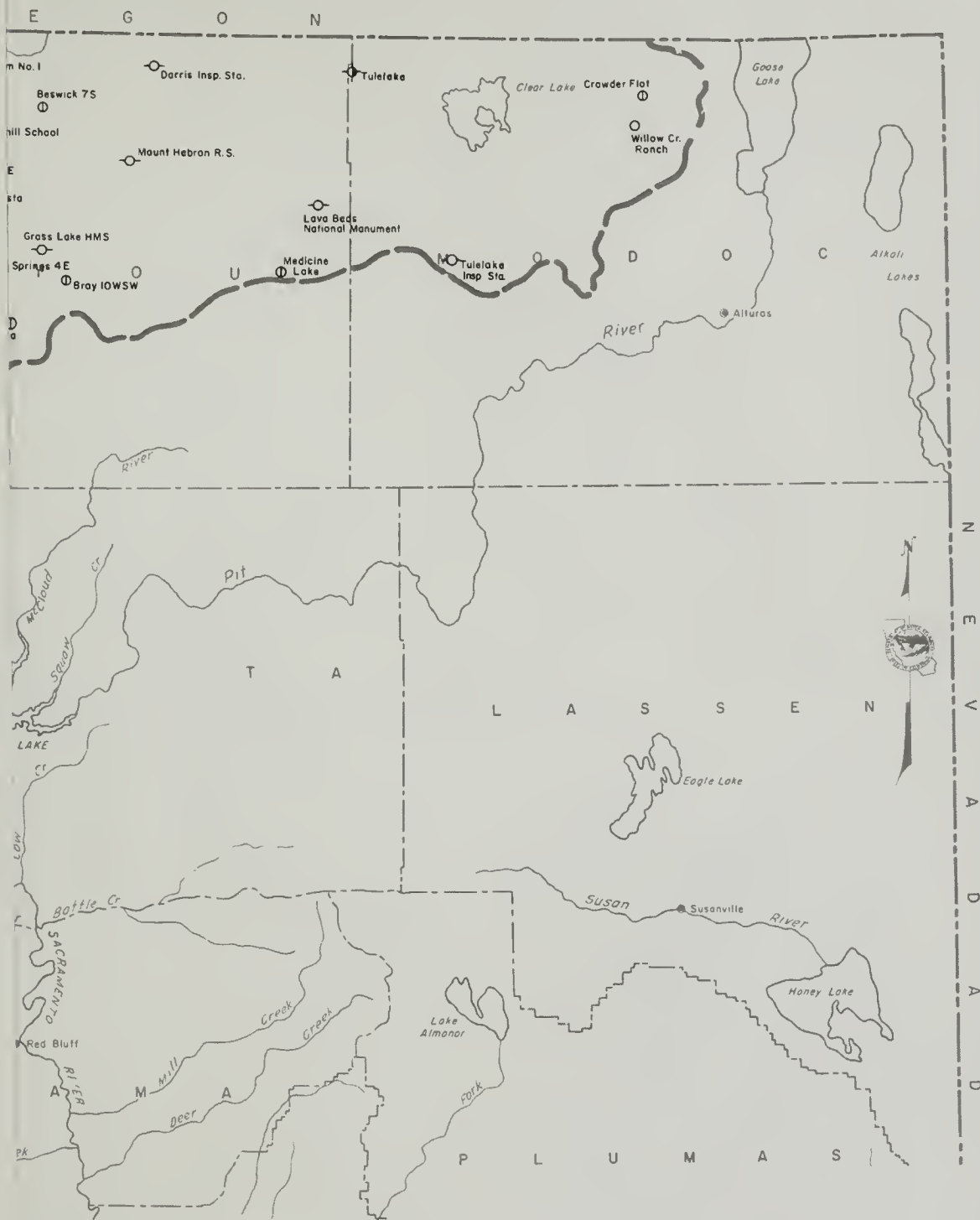
TABLE E-1 (Continued)

## MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	TEMP	LAB-PH FLD-PH	LAB-EC FLD-EC	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	8	SI02	TDS SUM	TH NCH			
ROUND VALLEY																				
23N/12W-31N01 D 08/24/65 5050	--	7.5	254	28 1.40	10 .82	--	--	--	--	--	--	--	1.1 .03	--	--	--	140	113		
23N/12W-33L01 D 08/24/65 5050	--	8.0	624	71 3.54	31 2.55	--	--	0.0 .00	416 6.82	2.3 .05	--	--	--	--	.1	--	338	306 0		
23N/13W-25P01 D 08/24/65 5050	--	7.6	241	32 1.60	8.3 .68	--	--	--	--	--	--	--	--	--	--	--	--	114		
23N/13W-36P02 D 08/24/65 5050	--	8.1	254	22 1.10	15 1.23	--	--	--	--	--	--	--	--	--	--	--	--	117		
22W/13W-13A01 D 08/24/65 5050	--	7.4	302	29 1.45	17 1.40	8.2 .36	--	--	--	--	--	--	--	--	.0	--	159	142		
LAYTONVILLE VALLEY																				
21N/14W-30M01 D 09/29/65 5050	--	7.2	227	13 .65	13 1.07	15 .65	0.7 .02	0.0 .00	123 2.02	0.0 .00	9.8 .28	0.2 .00	--	--	.0	--	133 112	84 0		
21N/15W-12M02 D 09/29/65 5050	--	7.8	85	8.4 .42	1.8 .15	5.5 .24	1.0 .03	0.0 .00	40 .66	1.0 .02	4.2 .12	0.1 .00	--	--	.0	--	60 42	28 0		
18N/13W-08L01 D 09/29/65 5050	--	8.5	323	28 1.40	18 1.48	18 .78	0.5 .01	8.0 .27	194 3.18	0.0 .00	2.3 .06	6.7 .11	--	--	.1	--	209 177	144 0		
18N/13W-16M01 D 09/29/65 5050	--	8.5	418	23 1.15	9.8 .81	47 2.04	1.6 .04	6.0 .20	117 1.92	1.0 .02	66 1.86	0.5 .01	--	--	11.0	--	272 223	98 0		







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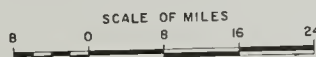
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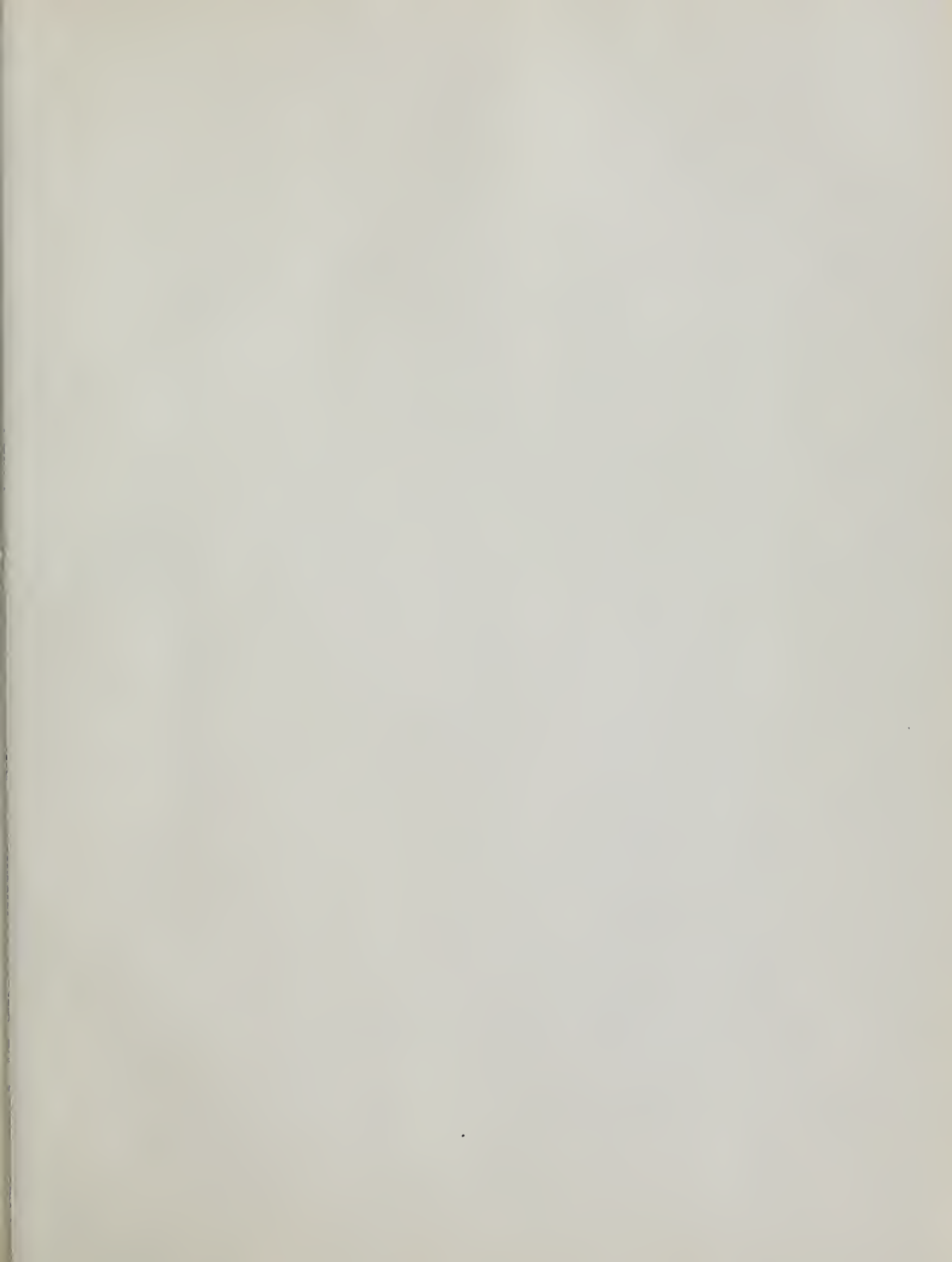
















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